Part 4

Tools & Resources

I. Tools List

Part 1, Introduction to Training

1(intro).1. Iowa Asso. of School Boards: Ways to Help Your Community Understand Staff Development

1(intro).2. Example of a Public Declaration

1(intro).3. Provider Approval Process & Application Form

1(intro).4. School Improvement Staff Development: Evaluating Current Plans

Part 2, Tour of the Model Components

I. Collecting & Analyzing Data

2(data).1. Generate Questions to Study Student Needs:
a. Sample Q's to Ask of Data
b. QIC Decide Tool
c. What We Need to Know about Our Student

2(data).2. Where to Find Answers to our Questions

2(data).3. How to Find Answers for the Sample Questions

2(data).4. Iowa Public Schools: Comprehensive Student Assessment System

2(data).5. Organize and Analyze Data

2(data).6. ITBS Item Analysis Summary

2(data).7. Additional Measures

2(data).8 Analyze & Report Data – Response Sheet

2(data).9 Operating Principles for Collecting/ Analyzing Data

II. Goal Setting

2(goal).1. Trajectories - State of Iowa & District

2(goal).2. District-Level Professional Development Targets, with Worksheets

2(goal).3. Operating Principles for Collecting/ Analyzing Data

III. Selecting Content

2(content).1. Slavin's *A Reader's Guide to Scientifically Based Research*; Discussion Guide

2(content).2. Scientifically Based Research Activity, with Sample of a Completed Documentation Form and a Discussion Guide

2(content).3. Iowa Content Network Awareness Activity
a. How to Use the Content Network Website, with Activity
b. Examples of Processes -Selecting Content
Example 1: Winfield-Mount Union & AEA16
Example 2: Mid-Continent School District

2(content).4. Examples of Processes to Follow to Select Content

2(content).5. Operating Principles for Selecting Content

IV. Designing Process for PD

2(proc).1. Joyce B & Showers B. (1995) *Student Achievement Through Staff Development.* White Plains, NY: Longman, pp. 110-113. Includes Discussion Guide

2(proc).2. Design of Professional Development

2(proc).3. Alpha District Case Study

2(proc).4. Operating Principles for Designing PD Process

V. Components of the Ongoing Cycle

2(cycle).1. Implementation Plan Worksheet

2(cycle).2. Examples of Others' Implementation Plans & Logs

2(cycle).3. Examples of How Others Have Monitored Their Implementation

2(cycle).4. How Will You Monitor Your Implementation - Worksheet (Implementation Protocol)

2(cycle).5. A Guide for Collaborative Structures

2(cycle).6. How Three Schools Designed Collaborative Teams

2(cycle).7. Examples: Collaborative Team Minutes and Logs

2(cycle).8. Augusta: How One District Studied Its Implementation

2(cycle).9. Finding Time for Training and Collaboration

2(cycle).10. Examples of School PD Calendars

2(cycle).11. Examples of One Project's Plan for Collecting Formative Data

2(cycle).12. Formative Data Plan Worksheet

2(cycle).13. Combining Your Own Implementation and Formative Data

2(cycle).14. Operating Principles for the Ongoing Cycle

VI. Program Evaluation (Summative)

2(eval).1. Goal Oriented Summative Program - Evaluation Questions

2(eval).2. Program Evaluation Standards

2(eval).3. Program Evaluation - Reporting Our Data

2(eval).4. Operating Principles for Program Evaluation

Part 3, Iowa Standards for PD & Teaching

3(stan).1. Drafting the District Career Development Plan, with Constant Conversation Q's

3(stan).2. Four Samples of Individual Career Development Planning Tools

General

gen-1. Common Assessment Terminology

gen-2. Acronyms and Abbreviations

gen-3. Four Operating Principles

Tool 1(intro).1. Iowa Association of School Boards Paper (page 1 of 2)

Ways to Help Your Community Understand Staff Development

Consider these tips for ways your school district can build community understanding around staff development. This resource and others can be found on the Iowa Association of School Boards' web site: www.ia-sb.org.

Parents and community members may not always agree with educators as to the role staff development plays in improving student achievement. As the new school year gets underway it is important to start explaining how staff development works and the way it will be offered in your district's school buildings during the coming year.

The more staff development activities affect the routines of students and their families, the less support it will receive from parents and others in the community. Disruptions to dismissal times can become a major problem for parents who are relying on child care services and who have established after-school activities for their children.

In many districts there are certain days identified during the year as inservice or professional development days. These are usually published well in advance and are noted on district calendars. As a result of this advanced notice they generally are accommodated by families and routinely accepted. If such days are scheduled in your district, don't assume that parents will always remember them. Put reminders in your school newsletter, and make sure the early release or no school dates are part of the information packets you supply to parents and students who are new to your school.

As districts are relying more and more on half-day professional development activities, it becomes necessary to increase the communication. The following suggested activities will help you win support for such important training and educational activities.

- ❑ Teachers need to explain to their students what the early release means and why it has been arranged. Encourage teachers to tell their students what they will be learning and how they plan to use it back in the classroom.
- ❑ Make sure the entire staff of each school building clearly understands what is to be the focus of training during the year. Is there to be one theme or a variety of focuses depending on the grade level or the time of the year? Clearly explain what training will be conducted and who will be involved. All staff? Teachers only? Certificated or classified employees? Don't forget to emphasize why continuing professional development is necessary and the benefits a well-trained staff will ultimately provide to students.
- ❑ Assuming you have the support of your local teachers' association, ask it to include information about the training in its publications. Provide information to other employee group publications so that they can be part of the information distribution process. Request endorsements from these groups and encourage them to speak out publicly about why such training is important.
- ❑ Work with parent booster organizations. Make sure their members understand the importance of the professional development and the schedule you have established for it. Ask them to help publicize it in their regular communication with members. Parent organizations might also be willing to sponsor activities for students during the time you have staff training.
- ❑ Post the information on your school Web site.
- ❑ Use explanations that are clear and simple. Don't get caught up in educational jargon. Use a common sense approach; for example: "After six or seven hours of teaching 20 third-grade students, Jane Doe doesn't have the energy to focus on new teaching techniques. The early release time allows teachers to have more energy which can be focused on their own learning rather than on teaching others."

Tool 1(intro).1. Iowa Association of School Boards Paper (page 2 of 2)

Another example: Your school district could create a flyer in which the cover said, "There are 986 reasons we're letting school out early each Wednesday." Inside, the flyer would explain, "There are 986 students enrolled in the Our Town Schools. Early release days, which will occur each Wednesday, will be devoted to finding new and better ways to educate each and every one of them."

- ❑ Meet with the editorial boards of your local newspapers. Discuss the early release days and the importance of them to improving student achievement. Seek an editorial in support of your training AND early release time.
- ❑ Make regular reports at school board meetings so that your district's elected officials understand what you are accomplishing and why it is important to students and their parents.
- ❑ Show the cost effectiveness of early release training versus having staff members come in on a Saturday. Include that information when discussing teacher professional development with parents and members of the business community.
- ❑ Report to parents and the community on a regular basis. Let them know how the staff training is working. Have a teacher or one of the invited guests write an article about the training and use it in a newsletter or submit it to the local paper.
- ❑ Never forget that the focus of the explanations and information should be on the affect the learning for staff is having on student academic achievement.

Adapted from material originally published in PR Express, IASB's communication subscription service for Iowa schools.

Example of a Professional Development Board Policy

A local school board in Iowa adopted this statement as board policy pertaining to professional development.

The Board of Directors shall maintain and support a comprehensive career development program for the professional development of its staff, and shall budget for the program in accordance with state requirements. It is the policy of the school district to support the connection between educator professional development and improved student achievement.

Under the direction of the Superintendent or his/her designee, the District and each school building shall annually establish school improvement priorities with an aligned action plan for professional development. Each school will develop and implement a professional development system with the following characteristics:

1. Its primary focus is improved student learning and achievement.
2. It is based upon current, documented research findings.
3. It focuses upon content and curricular needs as well as teaching methodology.
4. It utilizes approved content providers.
5. It is developed and directed by professional educators.
6. It is aligned with teacher and administrative performance standards.

Each principal, working in collaboration with the Superintendent or his/her designee, will report annually to the Board of Directors the effectiveness of their building's professional development system and its relationship to its student achievement goals identified in its school improvement plan.

Adopted: 4/09/04

Tool 1(intro).2. Example of a Public Declaration (one page)

Example of a Public Declaration

This is an example of one local district's public statement declaring its purposes, vision, values, and mission and knowledge. This district has made a public statement about the importance of student achievement and professional development to accomplish gains in student learning.

_____ District

Student Learning At The Center of
School Improvement/Staff Development/Program Evaluation

Operating Principles
• Focus on Curriculum, Instruction, and Assessment
• Participative Decision Making (School/District)
• Leadership
• Simultaneity

PUBLIC DECLARATIONS

Purpose
As educators in this school district, we believe that we exist to best serve students and the school community when we are totally committed to . . .
• Sharing knowledge
• Shared results

Vision
As educators in this school district, we totally believe that that it is possible for us to . . .
- Improve student achievement through collaboration and shared accountability for results.
- Increase our teachers, administrators, and support staff's capacity to engage in job-embedded professional development.

Values
As educators in this school district, we firmly believe that . . .
- School improvement is everyone's responsibility.
- School improvement and professional development must center upon improved student achievement.
- All staff must continuously evaluate their contributions to school improvement, professional development, and improved student learning.

Mission
As educators in this school district, we are on a mission to . . .
- Engage all in measurably contributing to the collective good of school and school system rather than private or individual achievements.
- Increase every individual's capacity to improve the quality of instruction in every school.
- Translate school improvement and professional development into concrete structures, schedules, processes, norms, and implemented instructional practices.

Knowledge
As educators in this school district, we are constantly striving to increase our collective ability to . . .
- Collect, analyze, and use student data to guide our decision making.
- Set goals for improved student achievement.
- Select content and qualified providers for professional development.
- Design research-based professional development processes.
- Implement ongoing training and learning opportunities.
- Collaborate and implement practices with fidelity.
- Assess our ongoing progress through formative data collection tools.
- Evaluate all school programs and services.

Notes

Tool 1(intro).3. Provider Approval Process & Application Form (page 1 of 2)

Provider Approval Process & Application Form

Effective September of 2004 local districts submit district career development plans as part of the Comprehensive School Improvement Plan. Each district is required to identify an approved provider(s) in the district career development plan. A district may be its own provider, or a district may choose to identify additional approved provider(s). See Tool **1(intro).3.** for the provider approval process and form.

What Is An Approved Provider?
Providers are those individuals, agencies, or organizations that serve the district by providing long term, ongoing support of the district career development plan. An approved provider is:

- ❑ An individual or organization that already has accreditation or approval by the Department of Education

OR

- ❑ An individual or organization that has submitted an application for approval process to a local district and has been recognized as an approved provider by the local district.
- ❑ Individuals, agencies, and organizations that are invited or employed by the district to deliver content training are not required to be approved but should be held to local district expectations for quality.

Who Can Be A Provider?
A provider can be a school district, an area education agency, a higher education institution, other public or private entities including professional organizations that provide long-term, ongoing support of the district's career development plan, or a consortium of any of the foregoing.
Area Education Agencies, Local Education Agencies, and Iowa Institutions of Higher Education are already accredited or approved through state accreditation procedures and personnel representing these agencies are considered approved to serve as professional development providers.
Other public and private entities, and professional associations that provide long-term ongoing technical assistance to the local district must follow procedures for becoming approved.

What Does A Provider Do?
Examples of ongoing, long-term support roles include:
- ❑ Facilitate the collection, organization and analysis of data;
- ❑ Assist with the review of the literature and selection of research based content;
- ❑ Assist with design of training and learning opportunities and workplace supports including collaborative structures.
- ❑ Facilitate the formative and summative evaluation of the professional development;
- ❑ Assist with aligning district career development plans and individual teacher career development plans, and
- ❑ Other technical assistance services that support the design, implementation and evaluation of professional development for student achievement.

What Are the Procedures for Establishing And Documenting Approval?
Each local district will select an individual or organization to support their work in designing, implementing and evaluating the district career development plan. If the individual or organization is already approved, the only step needed is to list that individual and identify the organization they work for in their district career development plan.

If the district has identified an individual or organization that is not approved, the district will review and approve an application from the provider (see facing page). The potential provider must submit a written application to the school district that addresses the following expectations:
- ❑ How the provider will deliver technical assistance that meets the Iowa professional development standards.
- ❑ How the provider intends to assist the local district in designing, implementing, and evaluating professional development that meets the requirements
- ❑ A description of the qualifications of the provider.
- ❑ Evidence of the provider's expertise in professional development.
- ❑ A budget.
- ❑ Procedures for evaluating the effectiveness of the technical assistance delivered by the provider.

The local district administration reviews the application and determines whether that individual or organization has the capacity to support their district's career development planning process. Once the district determines the applicant meets their expectation, the individual is listed the district career development plan as their approved provider.

Tool 1(intro).3. Provider Approval Process & Application Form (page 2 of 2)

_____Community School District

The individual or organization applying to the local district to become an approved provider completes this form. The completed form and budget remain on file in the local district.

Name of Individual or
Organization requesting approval: _____

District Approved Provider: _____

Date of Application: _____

Describe how you will deliver technical assistance that meets the Iowa professional development standards. Include a schedule that suggests how you intend to support our district over time.

Describe how you intend to assist our district in designing, implementing, and evaluating professional development that meets the requirements for the District Career Development Plan.

Provide a one-paragraph description of your qualifications and areas of expertise in professional development.

Attach a narrated budget that describes your fees and expenses for providing services to our district.

List the procedures for evaluating the effectiveness of the technical assistance you plan to deliver in our district.

Provider Approval Granted:

Signature of Local District Administrator	**Date**

Provider Approval Denied:

Signature of Local District Administrator	**Date**

Tool 1(intro).4. School Improvement Staff Development: Evaluating Current Plans (p.1 of 4)

School Improvement / Staff Development: Evaluating Current Plans

School Improvement/Staff Development: Evaluating Current Plans

Amendments to perfect the Iowa Student Achievement and Teacher Quality legislation (HF 2549) encourage schools and local districts to evaluate current professional development practices and to consider whether professional development is aligned with district student achievement goals and is focused on research-based instructional strategies. The attached instrument was developed by Dr. Beverly Showers with input from the Iowa Teacher Quality Program Professional Development Stakeholder Group. This instrument is available to assist schools and local districts to conduct a self-evaluation of professional development practices.

In the summer of 2001, the National Staff Development Council (NSDC) published revised standards for staff development, placing improved student learning at the core of quality staff development programs. This change in focus represented a major shift in the organization's focus. For many years the quality of professional development was judged by the satisfaction of participants rather than by the benefit to students.

During the same period, the State of Iowa passed Teacher Quality legislation which included new expectations for professional development in the state, specifically that staff development serve the learning needs of students. With respect to professional development, the Teacher Quality legislation closely follows the NSDC standards for staff development.

Briefly, the NSDC standards fall into three categories: the context, process, and content of staff development, and activities in each of these areas is envisioned to occur concurrently rather than sequentially. Context standards address the culture of the school and school district, including norms for continuous growth and time for collaborative professional learning, administrative leadership, and the alignment of district and school goals for student achievement. The Process standards address the design of staff development–how will student data be analyzed to determine need, which content is most likely to impact the identified need, how will training and follow up be organized and implemented, and how will faculties be structured for the collaborative work of implementing new learning. The Content standards include subject matter content and teaching strategies, equity issues, and family involvement.

The following questions are designed to assist schools and districts to examine current staff development practices and to encourage discussion of ways to bring current practice more in line with state and national standards for quality staff development–staff development focused on the learning needs of students.

For additional information contact: Deb Hansen, Professional Development Consultant for Teacher Quality, Iowa Department of Education, *deb.hansen@ed.state.ia.us.*

The QIC-Decide tool may be useful to assist districts in using data to address many of the questions suggested in this document.

Tool 1(intro).4. School Improvement Staff Development: Evaluating Current Plans (p.2 of 4)

1. DATA/GOALS [process standard]

The LEA examined the following data to identify student need and to set priorities for school improvement and staff development.

Describe current LEA practices in writing:

Discussion: How did the LEA (as well as individual schools within the LEA) go about examining their own data? Did they look at data in addition to their ITBS scores? When LEAs/schools studied test scores, did they disaggregate data by gender, SES, ethnic groups, students with disabilities, etc.? Were disaggregated data communicated to and discussed with staff? Were implications of discrepancies in achievement explored? Did the district or its schools collect any additional data to clarify student needs? How confident are you that the LEA's study of its student data identified a real student learning need?

2. FOCUS [context/process/content standards]

The LEA identified the following need(s) for improvement as part of the current CSIP process.

Describe current LEA practices in writing:

Discussion: Is there a single focus or has the school listed multiple subjects/areas they intend to address during the current professional development cycle? Is the focus of school improvement in the area of curriculum and instruction? If no, how would you characterize the focus (e.g., improved climate, school/community relations, etc.)?

3. STAFF DEVELOPMENT [context/process/content standards]

The LEA planned the following staff development to support their school improvement focus.

Describe current LEA practices in writing:

Discussion: How does the planned staff development align with the CSIP focus? For example, if the school's primary concern was literacy and the need to improve student reading and writing skills, is the planned staff development in the areas of reading and writing? How much time is allocated to staff development, and how much of that time is reserved for training (learning of new content)? Is continued follow-up or technical assistance planned to support initial training events? Will whole schools, grade levels, departments, etc., participate in the planned staff development, or is participation voluntary? Are sufficient resources allocated to support in-depth training initiatives?

Tool 1(intro).4. School Improvement Staff Development: Evaluating Current Plans (p.3 of 4)

4. IMPLEMENTATION [process standard]

Please describe the LEA's plan for implementing the planned change and describe how the planned change will look in classrooms.

Describe current LEA practices in writing:

Discussion: Does the LEA have a clear vision of what students will experience differently as a result of the school improvement/staff development plan? Can the LEA explain how it will know when implementation of the planned change has occurred? How will the district address schools and classes where implementation is lagging?

5. COLLABORATION [process standard]

Please describe the LEA's plan for providing teachers time for collaboration as they work to implement the planned change.

Describe current LEA practices in writing:

Discussion: Is adequate time provided for small groups of teachers to plan and develop lessons, to share their experiences and insights from early trials, to problem-solve difficulties with the implementation, etc.? Is a structure for use of the collaborative time provided to clarify intended use of time?

6. FORMATIVE EVALUATION [process standard]

Please describe the LEA's plan for collecting data that will be used to determine additional training needs, student response to the planned change, and modifications needed in the initiative. (Formative data includes the information gathered on an ongoing basis to provide feedback to teachers about the efficacy of their efforts.)

Describe current LEA practices in writing:

Discussion: Are data collection instruments aligned with the planned change? Is the schedule for collecting data appropriate for the type of change intended? Is there a plan for analyzing the data and providing feedback to teachers and administrators in a timely fashion?

Tool 1(intro).4. School Improvement Staff Development: Evaluating Current Plans (p.4 of 4)

7. PROGRAM EVALUATION [process/context standards]

Please describe the LEA's program evaluation plan.

Describe current LEA practices in writing:

Discussion: What data will be collected (e.g., pre/post tests, etc.) to determine if the planned change is having the intended effect? How will data be combined with implementation data to determine if student effects varied by implementation? How will data be disaggregated, shared, discussed? How will program evaluation data be used to plan the next cycle of school improvement/staff development? Does your program evaluation plan allow you to examine the cost effectiveness of your professional development program?

Generate Questions to Study Student Needs
a. Sample Questions to Ask of Data

This activity is designed to help participants begin to identify and form important questions regarding student achievement. The emphasis is on forming meaningful and measurable questions. The sample questions are provided as a starting place for conversations. Aligned with the sample questions are suggested places to find the information and suggested methods to employ to answer each question. Participants should begin by reading the sample questions and then generate their own questions regarding the area of student achievement that is of interest.

The QIC-Decide tool from Data Driven Leadership (DDL) guides a process to assist educators in forming questions and using data to make decisions. QIC-Decide may assist districts in using data to address many of the questions suggested in these materials. Tool 2(data)3 has suggestions for where to find answers to these questions.

District

1. How does our student performance in reading and math compare with state and national achievement norms?
2. Are our mean percentile math and reading achievement scores consistent at the elementary, middle school and high school levels?
3. How does the achievement of our various subgroups (e.g., Special Education, English Language Learners, Low Socioeconomic Status, ethnic minorities, etc.) compare with our district averages in reading and math? Are we serving all students equally?
4. How many schools do we have "in need of assistance" or in danger of being labeled "in need of assistance?"
5. How do our reading and math scores correlate with attendance?
6. How do our reading and math scores correlate with discipline referrals?
7. How many of our students are proficient in reading? Math?
8. How many of our students are "marginally" proficient (e.g., scoring between the 41st and 50th percentile in reading and math on the ITBS/ITED?)

School

[Schools will ask many of the same questions of their school data that the district asks about all their students. In addition, schools have other questions that are specific to their sites.]

9. What areas of reading/math are most difficult for our students (e.g., item analyses of ITBS/ITED data will reveal scores for sub-categories of reading such as "decoding", "using context clues", and "determining main ideas")? What are the strongest skill areas for our students in reading and math? What are the weakest areas?
10. Do we have overlap among our sub-groups (e.g., how many of our special education students receive free/reduced lunch or how many of our low SES students belong to ethnic minorities)?
11. As a sub-group, our Special Education students scored lower on the reading portion of the ITBS than the rest of our student population. When we look at the distribution of reading scores for students in special education, are there clusters of high and low achievement by type of disability?
12. What are the reading scores of students who have dropped out of school this year?
13. What is the correlation of reading scores with students who have been referred to the office for discipline problems this year?
14. How much independent reading do our students do? At school? At home?
15. What supports for struggling students are present in our school, neighborhood, and community? Do we know how effective they are?
16. Why are our students referred to the office? What are the most common forms of student misbehavior in our school?

Department/Grade Level(s)

17. What specific comprehension tasks account for the 4th and 5th grade decline in overall comprehension scores on the ITBS?
18. How many of the 9th grade students reading below the 40th percentile on ITED are earning D's or F's in English I?
19. When we examine the item analysis data for math on the ITBS/ITED, are the weaknesses discovered in problem solving consistent across all the grades?
20. How many of our students failed Algebra I? How many failed English I?

b. The QIC Decide Tool

Iowa Area Education Agencies describe QIC-Decide protocol on the website, http://www.iowaaea.org/evaluation/b.10-qic-decideprotocol.html.

The Iowa Professional Development Model and QIC-Decide

The implementation of the Iowa Professional Development Model requires careful use of data throughout the process. The design of the model incorporates an action research process that includes multiple steps where data are collected, organized and analyzed to make decisions about professional development and school improvement. The QIC-Decide tool guides a process to assist educators in forming questions and using data to make decisions. QIC-Decide may be used to facilitate the action research approach that serves as the framework for the Iowa Professional Development Model. The four steps in QIC-Decide are:

- Question
- Information
- Collect
- Decide

Administrators and other practitioners trained in the QIC-Decide process may determine that QIC-Decide expedites their work in implementing the action research cycle outlined in the Iowa Professional Development Model. Examples of questions that might arise in the various steps of the Iowa Professional Development Model are listed below. Many of these questions will generate additional questions that can be addressed using the QIC-Decide process.

1. What does the CSIP data tell us about how all students in our district/building are performing in reading? … math? …science? How is each subgroup in our district performing in reading? … math? …science? What implications do these results have for instructional practice? For staff development? What additional student performance data do we need to determine a focus for professional development?

2. What focus area in curriculum and instruction has the greatest urgency for our students and their families?

3. Which scientifically research-based strategy is likely to close achievement gaps identified through the CSIP process? Is this strategy replicable in our district/building?

4. How will we know when implementation of the planned strategy has occurred? Is each teacher in our district/building implementing the strategy with fidelity? How many children in our district have experienced accurate application of the strategy in the classroom on a consistent basis? How will the district address schools and classes where implementation is lagging?

5. Is adequate time allotted for staff development to enable teachers to plan and discuss lessons?

6. How frequently are students experiencing the content of staff development?

7. What do the trend lines in student performance data suggest about the effectiveness of the staff development initiative?

Tool 2(data).1. Generate Questions to Study Student Needs: (page 3 of 6)

QIC-DECIDE Standards and Benchmarks

Question

Standard 1: Identifies and forms important questions that define a specific problem.
Benchmarks:

1.1 Identify questions that will lead to improved programs, services, and results for children and youth.
1.2 Forms assessment questions in a way that they can be answered with data.

Information

Standard 2: Identifies the information needed to answer the question.
Benchmarks:

2.1 Determine the type and quality of the information needed based on the nature of the decision.
2.2 Identify the quantity of information based on the nature of the decision.

Collection

Standard 3: Collects and effectively organizes information.
Benchmarks:

3.1 Use efficient and effective data gathering strategies
3.2 Organize and analyze the information appropriately.

Decide

Standard 4: Uses information to make important educational decisions.
Benchmarks:

4.1 Appropriately interprets the information to draw conclusions that are meaningful to educational practice.
4.2 Uses the collected data to document and justify the decision, taking into account the possible limitations of the data.

The following page shows a brief example of one school's application of the QIC-Decide tool.

Tool 2(data).1. Generate Questions to Study Student Needs: (page 4 of 6)

Question **– Identifies and forms important questions that can be answered with data that define a specific problem and that lead to improved programs, services, and student achievement**

Area: grade six reading

Who to involve: classroom teachers, Title teacher, special education teachers, curriculum director, principal

Expectations: all students at the proficiency level

Question: How are our sixth graders achieving in reading?

Information **– Identifies information necessary to answer the question by determining the type, quality, and quantity of information**

Consequences: high

Amount/type of data needed: one source of data that is technically adequate, highly objective, and direct in measure; at least one source of supporting data that is as technically adequate, highly objective, and direct in measure as possible

Information to collect: 3RD -5th grade ITBS and multiple measure scores in reading, attendance data, when started school, intervention data (Special Ed, Title, etc.), tardy, ELL, SES

Collect **– Collects and effectively organizes information using efficient data collection strategies; analyzes information appropriately**

Plan: yes

Organize: raw data tables of non proficient students

Summarize: number of students by subgroups

Display: line graphs indicating four years of collected data

Decide **– Directly answers the question using collected information, with appropriate interpretation of information in order to make documented and justified conclusions**

Interpret: 21not 41NPR (16%), 10/21 SE (48%), 14/21 Boys (67%), 13/21 FR (62%), 0/21 are ELL. 8/21 Never Proficient (38%)

Decision statement and Justification: How are our sixth graders achieving in reading? The decision is that 21 of 132 sixth grade students are not reading at the proficient level. We are confident in this decision because of the amount and types of data used to make the decision

Communication: communication to the following groups: teaching staff, administrative team, school board, parents

Next steps: further analysis of multiple data sources, for those who have a skill deficit, determine teaching strategies to address deficiencies.

Tool 2(data).1. Generate Questions to Study Student Needs: (page 5 of 6)

Question
Area: **Who to involve**: **Expectations**: **Question to answer:**
Information
Consequences are: **Amount/type of data needed**: **Information we will collect**:
Collect
Plan: **Organize**: **Summarize**: **Display**:
Decide
Interpret: **Decision statement** **Justification**: **Communication**: **Next steps**:

Tool 2(data).1. Generate Questions to Study Student Needs: (page 6 of 6)

c. What We Need to Know About Our Students

As the team members generate questions to address the topic, "What we need to know about our students," they record each question on the form below. After the data have been collected, analyzed, and interpreted, team members record their answers.

QUESTION NUMBER	QUESTION	ANSWER

Tool 2(data).2. Where to Find Answers to our Questions (page 1 of 2)

Where to Find Answers to Our Questions

Now that you have generated questions about your data, consider the best places to get information to answer each question. Assessment data to answer many of the questions are probably readily available. But also consider other information you might need to collect, such as student attendance or the time students spend in reading instruction. After examining various data sources for answers to your questions, construct your own matrix of information sources. The key is to look for evidence from multiple sources of information. First, examine the sample in the table below. Then use the blank table to consider data for your own school.

	DISTRICT	SCHOOL
Data on Computer (ITBS/ITED and demographic data)	1, 2, 3, 4, 7, 8	10, 11, 12, 13, 17
Data on Hard Copy (item analysis for system and building)		9, 19
Other data (specify) Attendance data added to computer data by student	5	
Other data (specify) Number of office referrals for discipline by student)	6	
Sort office referrals for discipline by type		16
Data on amount of independent work done by students		14
School and community programs before and after school for homework assistance, tutoring, etc.		15
Grade distribution data		18, 20

Tool 2(data).2. Where to Find Answers to our Questions (page 2 of 2)

On the form below, consider the sample questions **you** generated and determine where you will find the information to answer each question. Use the numbers corresponding to the questions from Tool 2(data).1c, "What We Need to Know about Our Students."

	DISTRICT	SCHOOL
Data on Computer (ITBS/ITED and demographic data)		
Data on Hard Copy (item analysis for system and building)		
Other Data (specify)		

Tool 2(data).3. How to Find Answers for the Sample Questions (page 1 of 2)

How to Find Answers for the Sample Questions

Knowing what questions to ask is the first step. Knowing where to find the answers is the next. Different questions require that the data be examined in different ways. The following discussion examines each of our sample questions and suggests one method to examine the data to answer the question. Often there are multiple ways that the data can be examined to answer each question.

District

1. How does our student performance in reading and math compare with state and national achievement norms?
   ITBS and ITED both have national and state achievement norms. Other assessments, PLAN, EXPLORE, and ACT for example, have national norms. Examine the state and national percentile ranks. On ITBS and ITED be careful because the school data is given two ways: rank on student norms and rank on school norms.

2. Are our mean percentile math and reading achievement scores consistent at the elementary, middle school and high school levels?
   Again the ITBS and ITED percentile ranks will give you this information. CAUTION: it is not good statistical practice to find the mean of percentile ranks because they are not equal interval data. You must average the standard scores and then use a conversion table to find the appropriate percentile rank. EXCEL calculates mean, mode, standard deviation, and range quickly using the "descriptive statistics" function.

3. How does the achievement of our various subgroups (e.g., Special Education, English Language Learners, Low Socioeconomic Status, ethnic minorities, etc.) compare with our district averages in reading and math? Are we serving all students equally?
   Most assessments for which students receive scores can be disaggregated. Excel's "Pivot Table" tool can accomplish this easily.

4. How many schools do we have "in need of assistance" or in danger of being labeled "in need of assistance?"
   All school must test at least 95% of their students enrolled on the beginning day of ITBS/ITED testing.
   The percent of students who have attended for a full academic year (FAY) and score proficient on ITBS/ITED in Reading Comprehension and Math Total must be above the state Annual Measurable Objective (AMO). A 98% one sided confidence interval and safe harbor may also be taken into account.

5. How do our reading and math scores correlate with attendance?
   Again ITBS/ITED scores or another measure such as a criterion referenced test (CRT) may be used. The Excel Data Analysis Tool called "correlation" will calculate the correlations.

6. How do our reading and math scores correlate with discipline referrals?
   See #5.

7. How many of our students are proficient in reading? Math?
   First you must determine what is meant by proficient. For the NCLB legislation proficient is defined as scoring above the 40th percentile on the ITBS or ITED using the 2000 norms on the Reading Comprehension and Mathematics Total scores.
   Excel "IF" statements can help answer this question.

8. How many of our students are "marginally" proficient (e.g., scoring between the 41st and 50th percentile in reading and math on the ITBS/ITED?)
   See #7. An EXCEL scatter plot can also help to visualize just where your students are scoring.

School

[Schools will ask many of the same questions of their school data that the district asks about all their students. In addition, schools have other questions that are specific to their sites.]

9. What areas of reading/math are most difficult for our students? (E.g., item analyses of ITBS/ITED data will reveal scores for sub-categories of reading such as "decoding", "using context clues", "determining main ideas", etc.)? What are the strongest skill areas for our students in reading and math? What are the weakest areas?
   Again examination of ITBS and ITED as well as multiple measures will help make the picture clear. You may want to look at the Group Item Analysis, Class Skill Performance Profile, and/or Class Item Response

Tool 2(data).3. How to Find Answers for the Sample Questions (page 2 of 2)

Record. The Group Item Analysis has a visual graph that allows you to quickly note what skills or items your students struggled with compared with either the state or nation. Caution: the ITBS/ITED has very few items in some of the skill areas so interpretations must be made very carefully.

10. Do we have overlap among our sub-groups? (For example, how many of our special education students receive free/reduced lunch? How many of our low SES students belong to ethnic minorities? Etc.)
    This is demographic information. The EXCEL pivot table can help you organize your data.

11. As a sub-group, our Special Education students scored 20 percentile points lower on the reading portion of the ITBS than the rest of our student population. When we look at the distribution of reading scores for students in special education, are there clusters of high and low achievement by type of disability?
    EXCEL can help you compute frequency distributions for each disability type.

12. What are the reading scores of students who have dropped out of school this year?
    "Students who have dropped out" is binomial data, that is, either that student stayed in school (value =1) or dropped out (value = 0). Better question might be: how does the distribution of reading scores for students who dropped out compare to those that stayed in school? ITBS/ITED or another measure could be appropriate. Again, EXCEL can help you compute frequency distributions.

13. What is the correlation of reading scores with students who have been referred to the office for discipline problems this year?
    What you would probably correlate is the score on the assessment with the number of office referrals. EXCEL correlation can then calculate the appropriate statistic.

14. How much independent reading do our students do? At school? At home?
    A survey will be needed, but who is it best to ask? Students or parents? After you accumulate the data you may want to calculate descriptive statistics and frequency tables utilizing EXCEL.

15. What supports for struggling students are present in our school, neighborhood, and community? Do we know how effective they are?
    Different data collection strategies might be appropriate here to measure implementation and student data. The study design could vary dependent upon the support and whether or not "level" of support is to be measured. An ANOVA or regression might be the answer. EXCEL can do both of these functions.

16. Why are our students referred to the office? What are the most common forms of student misbehavior in our school?
    Frequency distributions could help answer this question. The answers may differ by classroom and/or grade level as well as by other subgroups.

Department/Grade Level(s)

17. What specific comprehension tasks account for the 4th and 5th grade decline in overall comprehension scores on the ITBS?
    See question #9.

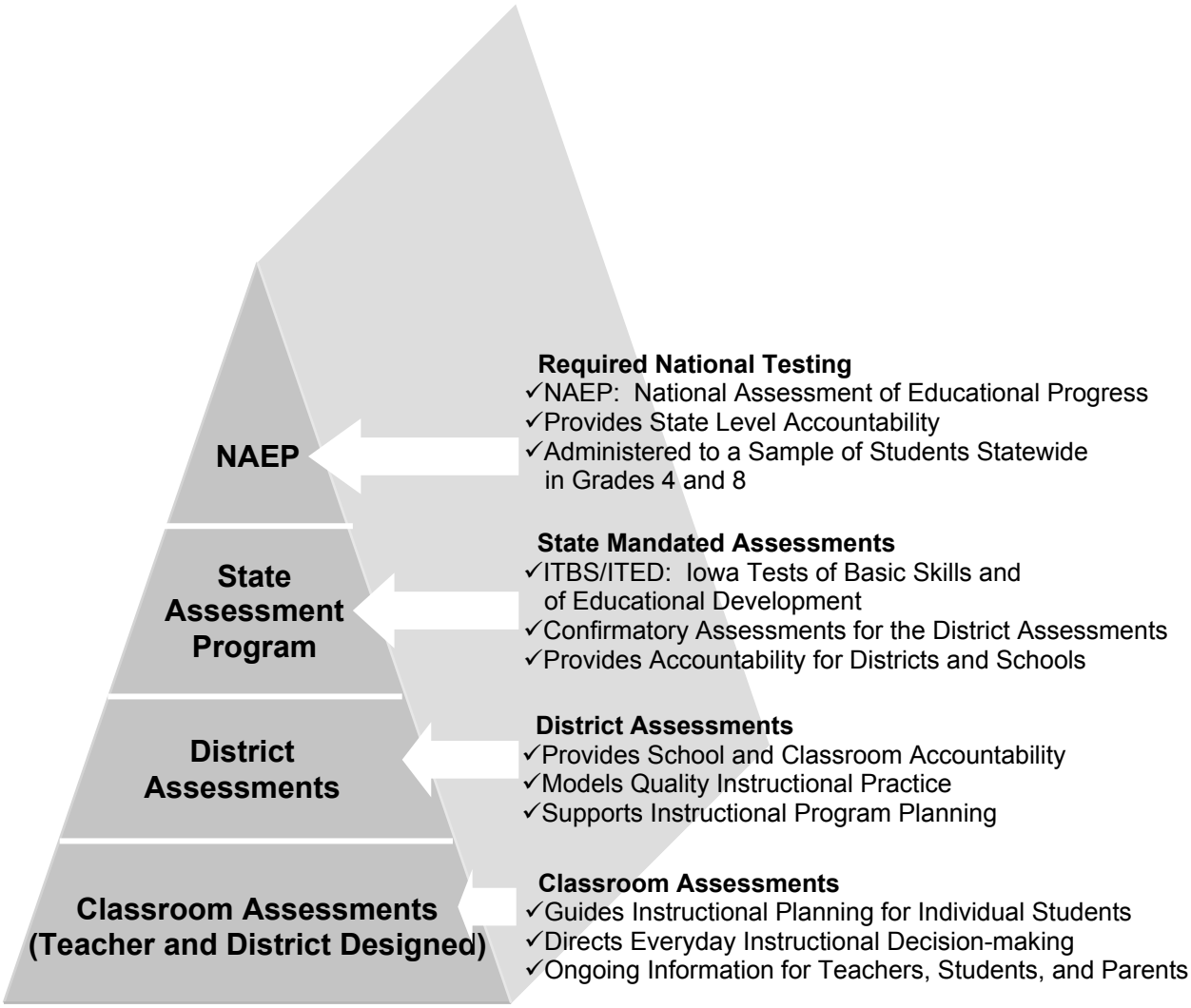
18. How many of the 9th grade students reading below the 40th percentile on ITED are earning D's or F's in English I?
    Construct a frequency table using all grades earned in English I using the students who scored below the 41st percentile.

19. When we examine the item analysis data for math on the ITBS/ITED, are the weaknesses discovered in problem solving consistent across all the grades?
    See question #9.

20. How many of our students failed Algebra I? How many failed English I?
    Construct a frequency table using all grades earned in Algebra 1 and/or English I. Note the median grade.

Tool 2(data).4. Iowa Public Schools: Comprehensive Student Assessment System (1 page)

Iowa Public Schools: Comprehensive Student Assessment System



Notes

Tool 2(data).5. Organize and Analyze Data (page 1 of 3)

Organize and Analyze Data

Four suggested ways to begin your examination of data follow. The methods listed here are designed to encourage you to consider different ways to look at data. Possible questions are also noted. All of the following computations and representations following are easily accomplished with paper and pencil. However, use of a computer program such as EXCEL may make calculations less tedious. AEA staff can help district and school staff members with ways to analyze data as well as how to use handy tools including EXCEL. Discuss each method of examining data and the reasons for using each.

Four ways to analyze data are discussed in the next three pages:

- ❑ Descriptive Statistics
- ❑ Disaggregate
- ❑ Longitudinal
- ❑ Cross-tabulation

Descriptive Statistics

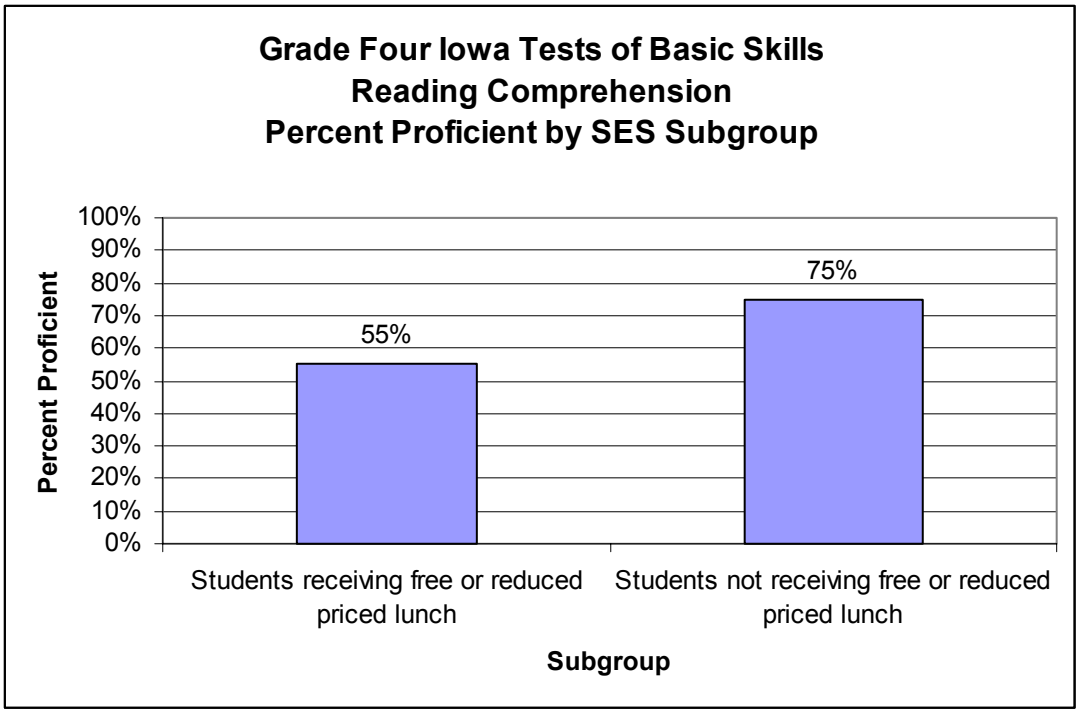
Descriptive statistics answer questions about a set of data, such as:

1. What is the mean (average) score?
2. What percent scored in the proficient range?
3. What was the highest score?
4. What was the lowest score?

Disaggregate

Disaggregate analysis can answer questions including, "Did one of our subgroups score differently from the rest?

Example of disaggregated data:



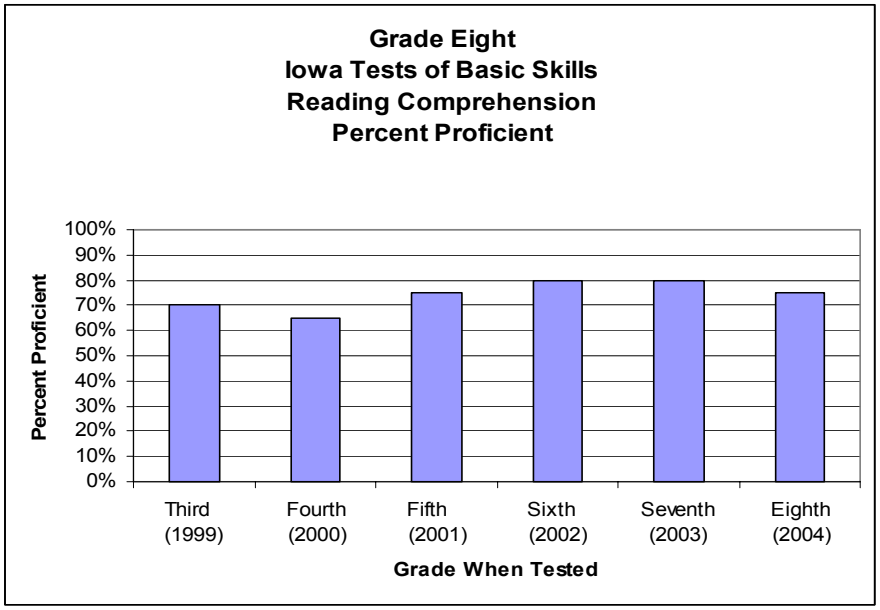
Tool 2(data).5. Basic Ways to Analyze Data (page 2 of 3)

Longitudinal

Longitudinal analysis answers the question "How are we doing over time?" Analysis may be by **cohort**, focusing on data over time for the *same* students; e.g., a selected group of students each year of testing. Or analysis may be **cross-sectional**, comparing results over time for *different* students who fit a specified description; e.g., all fourth graders for ten years.

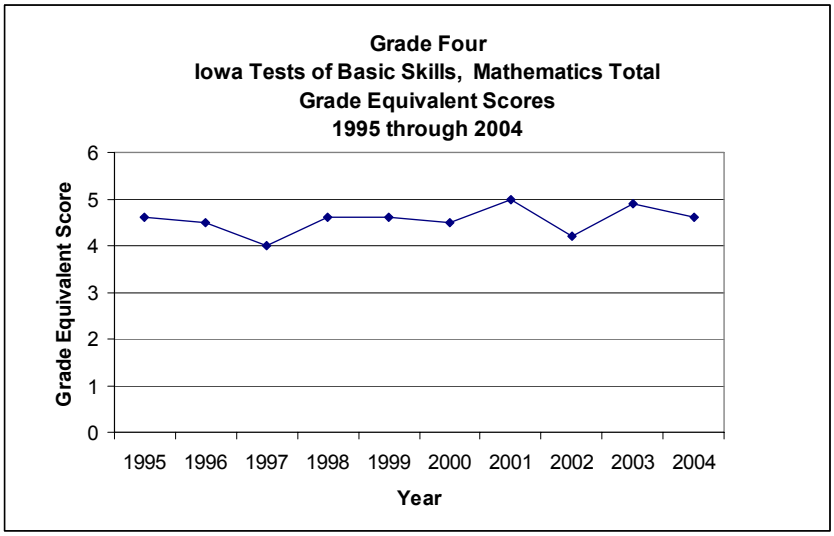
By Cohort. This example addresses the question, "Are the students improving?"

Example of longitudinal data by cohort:



Cross-sectional. This example addresses the question, "Are students in fourth grade doing as well as past fourth grade students?" Caution must be taken with this method to assure that any changes are real changes and not just a product of preexisting differences between groups.

Example of longitudinal data by cross-section:



Tool 2(data).5. Basic Ways to Analyze Data (page 3 of 3)

Cross-tabulate

Do the groups interact on certain characteristics?

A simple template for cross tabulations:

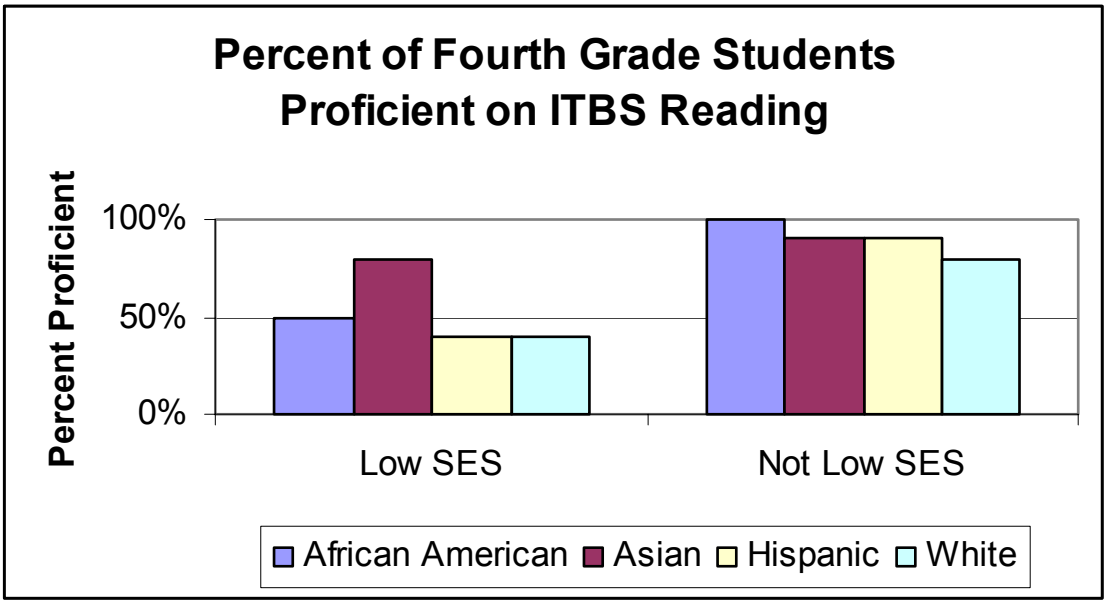
1. What is your basic measure (e.g. percent taking algebra, attendance rate, graduation rate)?
   Response: *percent proficient on ITBS Reading*
2. What is the first characteristic for dividing into groups (e.g. race, SES)?
   Response: *race*
3. What is the second characteristic dividing into groups (e.g., lunch statistics)?
   Response: *Socio-Economic Status (SES)*

Percent & Number of Fourth Grade Students Proficient on ITBS Reading

	African American	Asian	Hispanic	Native American	White
Low SES	50% n = 20	80% n = 5	40% n = 20	NA n= 0	40% n= 40
Not low SES	100% n = 10	90% n = 10	90% n = 20	NA n= 0	80% n= 50

*Note: cross-tabulating data may be a labor intensive process when the calculations are completed by hand. Use of a pivot table in a computer program such as EXCEL completes the table with ease.

From the above information the following chart was constructed:



Notes

Tool 2(data).6. ITBS Item Analysis Summary (page 1 of 5)

ITBS Item Analysis Summary

One of the data displays available from Iowa Testing Programs is the Performance Profile. While item by item analysis may be interesting especially for classroom teachers, performance on strands of items is often more informative. The following form is provided as a place to track the changes in strand performance over multiple grades. Caution is recommended with this analysis because some strands may be related only to a very small group of test questions. If this is true, the results may not be reliable enough to make determinations. Multiple data from multiple sources should always be considered.

School: _____

Average Percent Correct (Grades 3, 4, 5)

	Grade 3 (n=)			Grade 4 (n=)			Grade 5 (n=)		
	Our Students	Nation or State	Difference	Our Students	Nation or State	Difference	Our Students	Nation or State	Difference
READING VOCABULARY									
READING COMPREHENSION									
Factual Understanding									
Inference and Interpretation									
Analysis and Generalization									
MATH CONCEPTS and ESTIMATION									
Number properties & Operations									
Algebra									
Geometry									
Measurement									
Probability & Statistics									
Estimation									
MATH PROBLEM SOLVING & DATA INTERPRETATION									
Single- Step									
Multi-Step									
Approaches & Procedures									
Read Amounts									
Compare Quantities									
Interpret Relationships									
COMPUTATION									
Add w/ whole numbers									
Subtract w/ whole numbers									
Multiply w/ whole numbers									
Divide w/ whole numbers									
Add/subtract w/ fractions									
Add/subtract w/ decimals									
SCIENCE									
Scientific Inquiry									
Life Science									
Earth and Space Science									
Physical Science									

Tool 2(data).6. ITBS Item Analysis Summary (page 2 of 5)

ITBS Item Analysis Summary for Grades 3, 4, 5
Average Percent Correct

Areas of strength

Areas of weakness

Tool 2(data).6. ITBS Item Analysis Summary (page 3 of 5)

School: _____

ITBS Average Percent Correct (Grades 6, 7, 8)

	Grade 6 (n=)			Grade 7 (n=)			Grade 8 (n=)		
	Our Students	Nation or State	Difference	Our Students	Nation or State	Difference	Our Students	Nation or State	Difference
READING VOCABULARY									
READING COMPREHENSION									
Factual Understanding									
Inference and Interpretation									
Analysis and Generalization									
MATH CONCEPTS and ESTIMATION									
Number properties & Operations									
Algebra									
Geometry									
Measurement									
Probability & Statistics									
Estimation									
MATH PROBLEM SOLVING & DATA INTERPRETATION									
Single- Step									
Multi-Step									
Approaches & Procedures									
Read Amounts									
Compare Quantities									
Interpret Relationships									
COMPUTATION									
Add w/ whole numbers									
Subtract w/ whole numbers									
Multiply w/ whole numbers									
Divide w/ whole numbers									
Add w/ fractions									
Subtract w/ fractions									
Multiply w/ fractions									
Divide w/ fractions									
Add w/ decimals									
Subtract w/ decimals									
Multiply w/ decimals									
Divide w/ decimals									
SCIENCE									
Scientific Inquiry									
Life Science									
Earth and Space Science									
Physical Science									

Tool 2(data).6. ITBS Item Analysis Summary (page 4 of 5)

ITBS Item Analysis Summary for Grades 6, 7, 8

Average Percent Correct

Areas of strength

Areas of weakness

Tool 2(data).6. ITBS Item Analysis Summary (page 5 of 5)

School: _____

ITED Average Percent Correct (Grades 9, 10, 11, 12)

	Grade 9 (n=)			Grade 10 (n=)			Grade 11 (n=)			Grade 12 (n=)		
	Our Students	Nation or State	Difference	Our Students	Nation or State	Difference	Our Students	Nation or State	Difference	Our Students	Nation or State	Difference
READING VOCABULARY												
READING COMPREHENSION												
Factual Understanding												
Inference and Interpretation												
Analysis and Generalization												
MATHEMATICS												
Concepts/Procedures												
Data Interpretation												
Problem Solving												
MATH COMPUTATION												
Integers												
Decimals/Percents												
Fractions												
Algebraic Manipulations												
SCIENCE												
Interpreting Information												
Analyzing/Evaluating Information												
Analyzing Scientific Investigations												

ITED SUMMARY:

Areas of strength

Areas of weakness

Notes

Tool 2(data).7. Additional Measures, with Examples (page 1 of 2)

Additional Measures

Informed decisions require multiple sources of information. A district assessment plan must include assessments other than ITBS and ITED. The following text and chart discusses multiple measures used in the classroom to measure student achievement. All measures should have the highest degree of objectivity, technical adequacy, and alignment possible. The convergence of evidence becomes a powerful indicator for professional development goals.

To make informed decisions about goals for student learning and therefore, content for professional development, district and school personnel often need additional or more detailed information about what their students know and understand—information that may not be available from standardized tests such as ITBS/ITED.

In reading, for example, primary teachers frequently keep a profile of every student that includes each student's ability to recognize and name letters, associate sounds with letters and blends, and develop a sight vocabulary as well as a "running record" of a student's word attack skills and comprehension when reading from leveled materials. In other words, while the ITBS might indicate that a student has deficits in word attack skills, the teacher responsible for instructing that student will want to know exactly what skills a student has mastered and which require additional instruction.

Upper elementary and secondary teachers, when encountering students with poor reading skills, also will want to pinpoint the causes for a student's poor performance. Tests such as the *Names Test* enable a teacher to plot exactly what (if any) difficulties a student is experiencing with phonics. The *Basic Reading Inventory*, an individualized test for students up through grade nine, helps the teacher diagnose problems in fluency, sight vocabulary, word attack skills and comprehension.

Standardized tests of mathematical skills and understanding provide information on areas of difficulty for students that may again need elaboration with additional measures. For example, developers of the *Rational Numbers Project* curriculum have developed an interview protocol for probing student understanding of math concepts as well as their ability to apply math concepts in practical areas.

Teachers of science generally expect their students to master not only information in the various disciplines but processes for getting information. That is, the student is expected to know and use a systematic process for setting and testing hypotheses, precise laboratory techniques for measurement, and careful observation and recording of results. Science teachers may assess their students with teacher-made paper and pencil tests and observe them in performance tasks to made judgments about their knowledge and skill.

Tool 2(data).7. Additional Measures, with Examples (page 2 of 2)

Examples of Additional Measures

The type of additional measure teachers might employ is determined by their questions about their students' knowledge, skill and understanding within any given discipline.

In addition to the standardized test used by a district or state, teachers may decide to administer a different standardized test. For example, a district that administers the *ITBS* once a year may decide to use the *Stanford Diagnostic Reading Test* (SDRT4) – a standardized test – to gain additional information about their students in a specific subject area. Or, they may decide to use a standardized test, which is individually administered, such as the *Gray Oral Reading Test* or the *Durrell Analysis of Reading Difficulty*, with a sample of students experiencing difficulty with reading.

Teachers seeking additional information about student knowledge and skills in specific areas have another valuable option in the less formal–yet widely published and distributed–measures such as *Fry's Sight Words Test* and the *Beginning Phonics Skill Test*. Some rubrics fit this category as well, although some are locally developed.

Teacher-made tests add another dimension of measurement to teacher options for assessment. The advantage of teacher-made tests, of course, is their alignment with what is taught. Whether multiple choice, short answer, matching, or essay items are employed, the teacher can determine if students can demonstrate mastery of the material covered in his/her course.

Informal or "authentic" assessments often add texture and context to our understanding of what students know and understand. Systematic observation and checklists provide invaluable insight into a student's mind. A checklist while conducting a book talk or an observation protocol as students demonstrate their knowledge in a science laboratory can provide diagnostic as well as summative or formative information.

Interviews with students also provide a window into the student's mind. Whether a teacher interviews an individual student (as in the Rational Numbers Project studies) or listens to students working in cooperative pairs working through a problem-solving flow chart (as described in David and Roger Johnson's *Meaningful and Manageable Assessment Through Cooperative Learning*), listening to students provides information about their understanding rarely available from other sources.

There are many sources of additional measures. We are not suggesting you embark on massive and time-consuming measurement projects but merely pointing out that one measure of a student's knowledge, skill and understanding in any discipline rarely provides all the information needed to guide instruction, and thus to guide decisions about professional development content.

Tool 2(data).8. Analyzing & Reporting Our Data – Response Sheet (1 page)

Analyze and Report Data – Response Sheet

This worksheet provides a structured way to facilitate a discussion about data. Recording the team's responses to the questions regarding the data provides useful documentation about the findings and implications. This information will support goal setting and other decision making about professional development.

School Name: _____ Data Analyzed By: _____

Data Collection Period: _____ Date of Analysis: _____

Type of Data Analyzed: *(Check the data source you are analyzing.)*

Student Performance Data

___ ITBS/ITED

___ Diagnostic: _____

___ Grades or Progress Indicators

___ Other: _____

Other Data

___ Other: _____

Implementation Data

___ _____

___ _____

___ _____

___ _____

___ Other: _____

---

1. What do you notice when you look at these data? What are you comfortable saying about student or staff performance based on these results?

2. What additional questions do these data generate?

3. What do these data indicate students need to work on? Based on these data, what can we infer teachers/administrators need to work on?

4. What do the results and their implications mean for your district's comprehensive school improvement plan/district career development plan?

Notes

Tool 2(data).9 Operating Principles for Collecting/Analyzing Data (1 page)

Operating Principles for Collecting/Analyzing Student Data

List actions taken to support data collection and the analysis of student data. Identify actions needed to ensure that this component of the Iowa Professional Development Model is fully supported. Consider possible pitfalls and strategies to avoid them.

Focus on Curriculum, Instruction and Assessment:

Actions Taken:

Actions Needed:

Participative Decision Making:

Actions Taken:

Actions Needed:

Simultaneity:

Actions Taken:

Actions Needed:

Leadership:

Actions Taken:

Actions Needed:

Notes

Trajectories - State of Iowa & District

The Iowa Trajectory Worksheets that follow show the annual measurable objectives approved by the United States Department of Education for Iowa schools.

In response to the No Child Left Behind (NCLB) legislation, Iowa was required to set Annual Measurable Objectives (AMO) using trajectories that would require all students to be proficient in both reading and mathematics by the end of the 2013-2014 academic year.

In order to reduce the error in the measurement, the trajectories were established using biennium data. The state trajectories for grades 4, 8, and 11 vary slightly depending upon the starting point of the group.

Following each trajectory is a table with space to add scores from your school.

Adequate Yearly Progress (AYP) is the NCLB provision that established a timeline under which schools must raise all students to the proficient level in reading and mathematics within 12 years. This proficiency is established through scores obtained on a common assessment determined by each state. In Iowa this proficiency is determined through student achievement data from ITBS and ITED and the alternate assessment.

Using 2000-2001 and 2001-2002 achievement data, the State established reading and mathematics starting points for each grade level required to be tested.

The state also established a formula to reach 100% proficiency by 2014. Using biennium data, each school and district must meet an Annual Measurable Objective (AMO). If this objective is not met for each subject area and each subgroup of students that must be disaggregated, then a confidence band is applied to determine statistical significance to the percentage of students proficient. If the percentage still falls outside of the confidence band, the safe harbor provision is applied. A school that does not meet AYP for two consecutive years will be identified as a School in Need of Assistance (SINA).

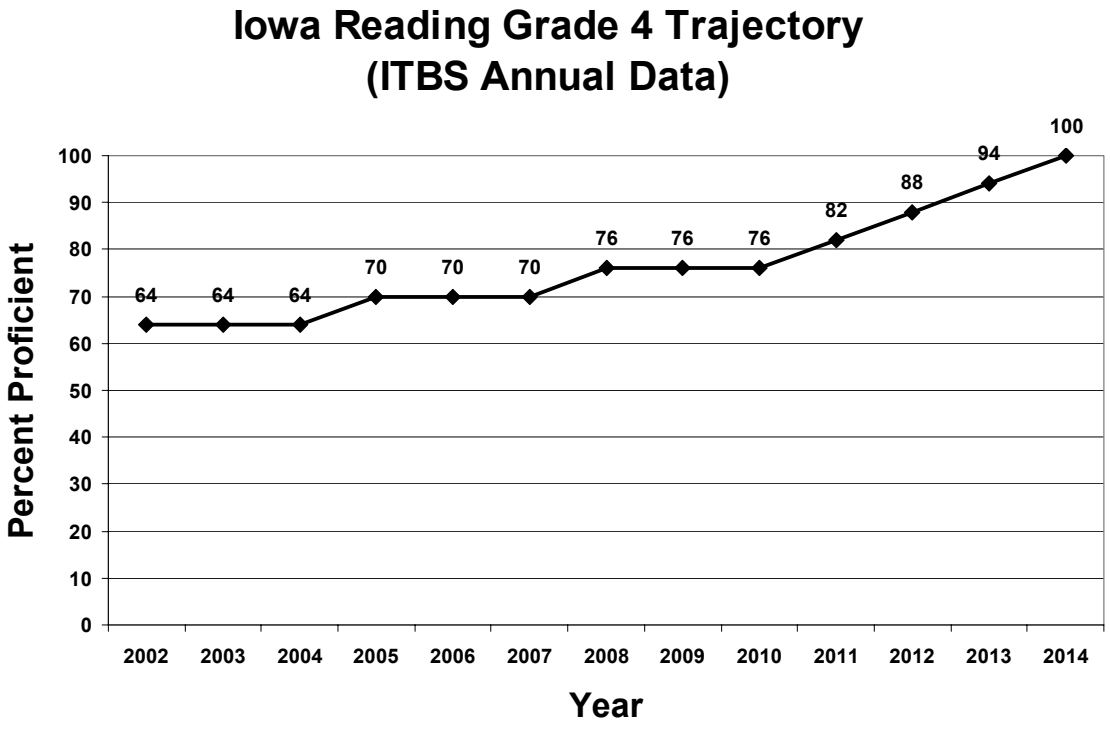
The following pages include these trajectories and worksheets:

4th grade reading
4th grade mathematics
8th grade reading
8th grade mathematics
11th grade reading
11th grade mathematics

This tool was revised October 2004.

Tool 2(goal).1. Trajectories - State of Iowa & District (page 2 of 7)

District _____ School _____



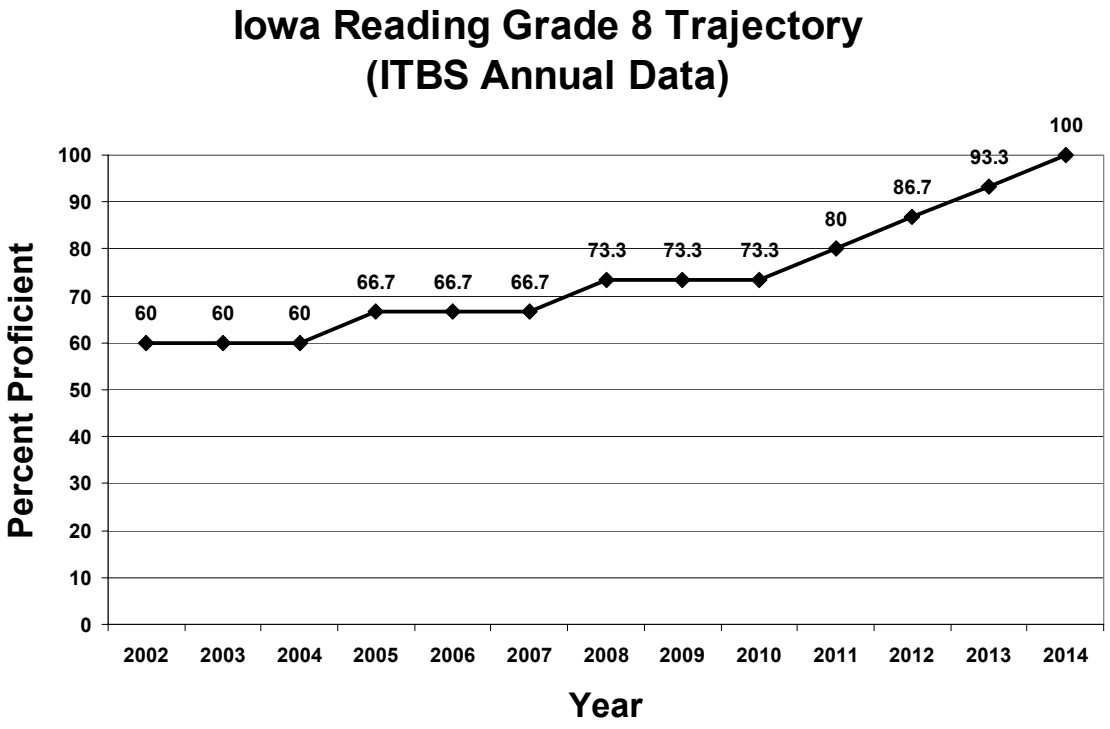
Add scores from your school:

Grade 4 Percent Proficient in Reading Comprehension in by Subgroup*

	2003-2004	2004-2005	Change
All Students			
Low SES			
Special Education			
Limited English Proficient			
Racial/Ethnic Subgroups:			
White			
African American			
Asian			
Hispanic			
Native American			

Tool 2(goal).1. Trajectories - State of Iowa & District (page 3 of 7)

District _____ School _____



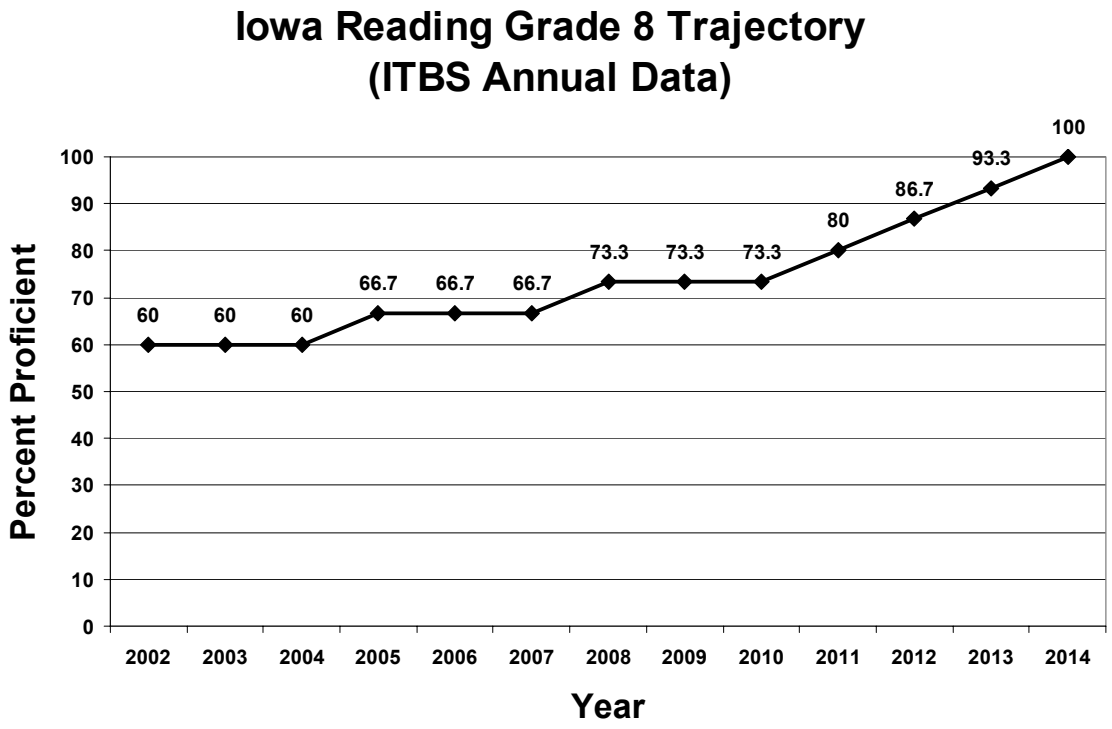
Add scores from your school:

Grade 4 Percent Proficient in Reading by Subgroup

	2003-2004	2004-2005	Change
All Students			
Low SES			
Special Education			
Limited English Proficient			
Racial/Ethnic Subgroups			
White			
African American			
Asian			
Hispanic			
Native American			

Tool 2(goal).1. Trajectories - State of Iowa & District (page 4 of 7)

District _____ School _____



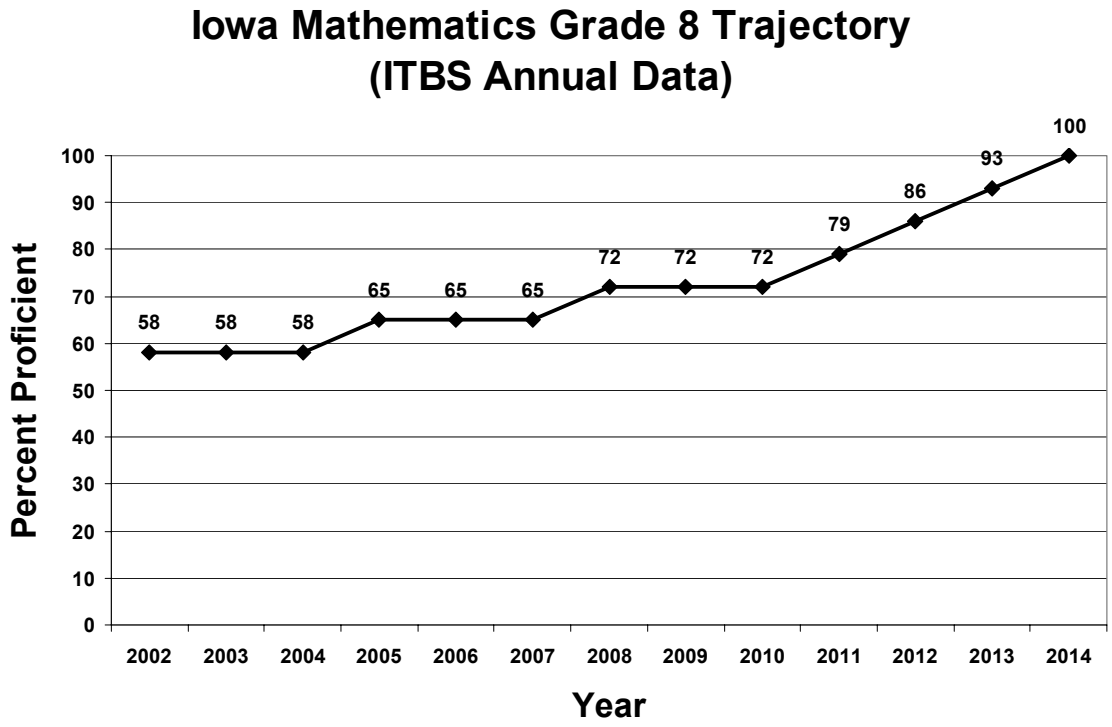
Add scores from your school:

Grade 8 Percent Proficient in Reading by Subgroup

	2003-2004	2004-2005	Change
All Students			
Low SES			
Special Education			
Limited English Proficient			
Racial/Ethnic Subgroups			
White			
African American			
Asian			
Hispanic			
Native American			

Tool 2(goal).1. Trajectories - State of Iowa & District (page 5 of 7)

District _____ School _____



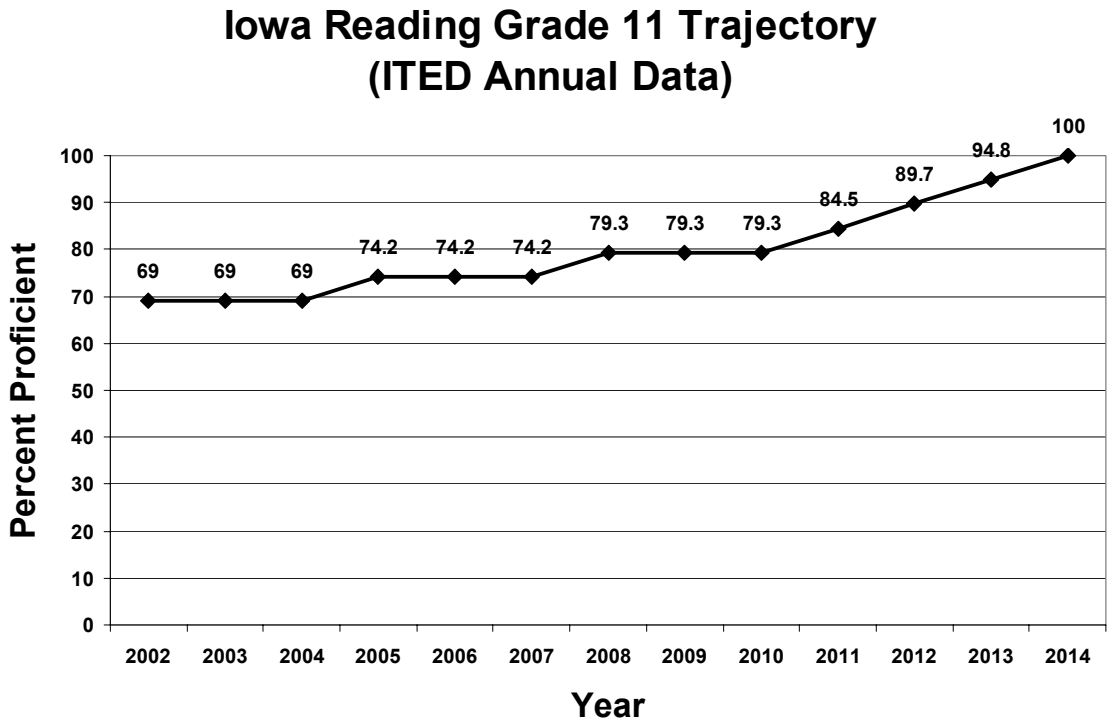
Add scores from your school:

Grade 8 Percent Proficient in Mathematics by Subgroup

	2003-2004	2004-2005	Change
All Students			
Low SES			
Special Education			
Limited English Proficient			
Racial/Ethnic Subgroups			
White			
African American			
Asian			
Hispanic			
Native American			

Tool 2(goal).1. Trajectories - State of Iowa & District (page 6 of 7)

District _____ School _____



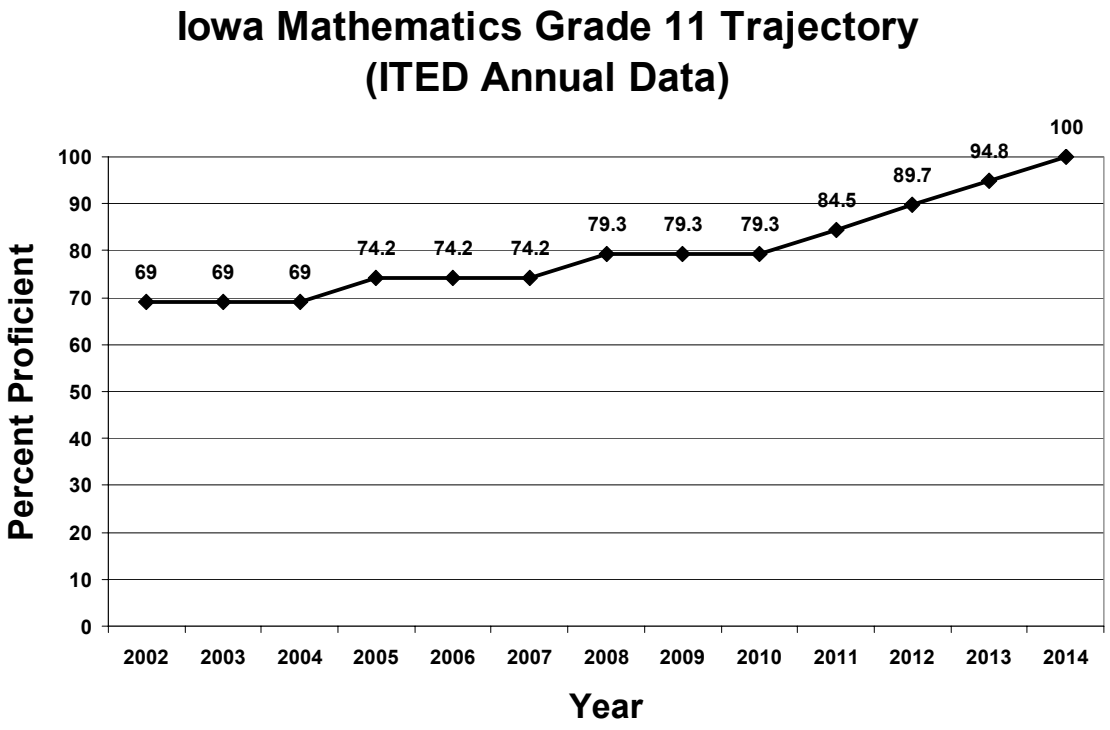
Add scores from your school:

Grade 11 Percent Proficient in Reading Comprehension in by Subgroup

	2003-2004	2004-2005	Change
All Students			
Low SES			
Special Education			
Limited English Proficient			
Racial/Ethnic Subgroups			
White			
African American			
Asian			
Hispanic			
Native American			

Tool 2(goal).1. Trajectories - State of Iowa & District (page 7of 7)

District _____ School _____



Add scores from your school:

Grade 11 Percent Proficient in Mathematics by Subgroup

	2003-2004	2004-2005	Change
All Students			
Low SES			
Special Education			
Limited English Proficient			
Racial/Ethnic Subgroups			
White			
African American			
Asian			
Hispanic			
Native American			

Notes

Tool 2(goal).2. District-Level Professional Development Targets, with Worksheets (p. 1 of 4)

Sample Goal Statements and Worksheets

The following paragraphs show some goal statements written for rural and urban districts and schools. Note that each entity chose to construct its goals in response to the growth needed to meet the Annual Measurable Objectives (AMO).

Rural District

Rural District has a very high proportion of students proficient in reading at the 4th grade level. Seventy-eight percent of fourth graders were proficient in reading in 2002-2003. Fourth grade reading proficiency has risen 3 percent in the last two years. However, an analysis of all reading data for Rural District shows sharp declines at the middle school and ninth grade levels in the percent of students proficient in reading. The district will need to write goal statements at multiple levels of their system.

Annual Improvement Goal: The percentage of students (including the measurable subgroup, SES) reading at the proficient level in grades three through eleven as measured by the ITBS and ITED Reading Comprehension Subtest will meet the proficiency levels on the district trajectory in 2004-2005

Targeted subgoal: Improve reading comprehension in grades 6-10 to increase reading proficiency.

Rural School

Rural School's task appears deceptively simple, with 89 percent of fourth-grade students proficient in reading in 2002-2003. The percentage of students proficient in fourth grade reading has increased two percent over the past two years. Because the school is relatively small and has fewer than 30 Special Education students enrolled, those students, as well as several ELL students, were not broken out by category. Further analysis of the Low SES data also revealed the majority of Low SES students were receiving reduced rather than free lunch, which indicates they are not desperately poor. While Rural School has been extraordinarily successful in teaching most of their fourth graders to read, they will need to study carefully the strengths and weaknesses of all their students in reading in order to meet their goals.

Annual Improvement Goal: The percentage of students reading at the proficient level in grades three through five as measured by the ITBS and ITED Reading Comprehension Subtest will meet the proficiency levels on the district trajectory in 2004-2005. While this goal statement meets legal requirements, the school will almost certainly want to make major inroads with the populations currently not being well served.

Targeted subgoal: Identify specific reading problems of under-performing subgroups and search for alternative instructional options that might address the needs of these groups while adding to the reading skills of all students.

Urban District

Fifty four percent of the fourth graders in Urban District were proficient in reading in 2002-2003. The district must meet the state Annual Measurable Objective (AMO) or risk being labeled in need of improvement. To meet the AMO the percent of students proficient in reading must rise to 65 percent by 2003-2004 (a large improvement) and meet the trajectory for every year following. A sample goal statement for the district might be:

Annual Improvement Goal: The percentage of students reading at the proficient level in grades three through eleven as measured by the ITBS and ITED Reading Comprehension Subtest will meet the proficiency levels on the state trajectory including each NCLB subgroup (low SES, special education students, limited English proficient students, and race/ethnic subgroups) in 2004-2005.
Targeted subgoal: Significant increases in the reading vocabulary and comprehension growth of all grade 3-5 students

Tool 2(goal).2. District-Level Professional Development Targets Worksheet (p 2 of 4)

Urban School

In 2002-2003, Urban School had only 50% of its fourth graders at or above the proficient level in reading. The school has a large Hispanic population and a significant number of students with Individual Education Plans (IEPs). In addition, half the school population is poor (low SES). The school set its goals similar to the way the district did.

Annual Improvement Goal: The percentage of students reading at the proficient level in grades three through five as measured by the ITBS and ITED Reading Comprehension Subtest will meet the proficiency levels on the state trajectory including each NCLB subgroup (low SES, special education students, limited English proficient students, and race/ethnic subgroups) in 2004-2005.

Targeted subgoal: Move an additional 20% of students into the "proficient" range in reading in the coming academic year.

Tool 2(goal).2. District-Level Professional Development Targets Worksheet (p 3 of 4)

District-Level Professional Development Targets – Worksheet

Professional Development Target 1:

_____

_____

_____

_____

_____

Professional Development Target 2:

_____

_____

_____

_____

_____

Tool 2(goal).2. District-Level Professional Development Targets Worksheet (p 4 of 4)

Building-Level Professional Development Targets – Worksheet

One the district goals are set, each building considers the building-level data to set a more specific target for determining the professional development actions at the building level.

Professional Development Target 1:

_____
_____
_____
_____
_____

Professional Development Target 2:

_____
_____
_____
_____
_____

Tool 2(goal).3. Operating Principles for Collecting/Analyzing Data (1 page)

Operating Principles for Goal Setting and Student Learning

List actions taken to support goal setting. Identify actions needed to ensure that this component of the Iowa Professional Development Model is fully supported. Consider possible pitfalls and strategies to avoid them.

Focus on Curriculum, Instruction and Assessment:

Actions Taken:

Actions Needed:

Participative Decision-making:

Actions Taken:

Actions Needed:

Simultaneity:

Actions Taken:

Actions Needed:

Leadership:

Actions Taken:

Actions Needed:

Notes

Tool 2(content).1. Slavin's *A Reader's Guide to Scientifically Based Research*; with Discussion Guide

A Reader's Guide to Scientifically Based Research

(Slavin, Robert E. *Educational Leadership*, February 2003, pp 12-16)

As a district considers the selection of content for professional development, Robert Slavin offers suggestions to help educators understand the purpose for selecting content that has a scientific research base.

Read the article "A Reader's Guide to Scientifically Based Research" by Robert Slavin, and complete the discussion guide below. Use the discussion points to center the district's focus around the selection of content.

1. Robert Slavin argues there is a need for scientifically based research in education. What is his rationale?

2. In educational research, why are the use of control groups and random assignments of subjects to treatment conditions thought to increase the validity of results?

3. Discuss the pros and cons of using schools as opposed to teachers or students as the unit of measurement in educational research.

4. Choose one of the areas of "research to avoid" (p. 15) and try to generate an example among the members of your group.

5. Slavin believes that evidence-based reform can transform our schools. Do you agree or disagree? Explain your position.

As of April 2004, the Slavin article is available online at
http://www.ascd.org/publications/ed_lead/200302/slavin.html
(Educational Leadership, February 2003 | Volume 60 | Number 5)

Notes

Tool 2(content).2. Scientifically Based Research Activity, (p 1 of 6)
with Sample of a Completed Documentation Form and a Discussion Guide

Scientifically Based Research Activity

This activity will help participants become familiar with what is included in the reviews of research studies provided on the Iowa Content Network.

Iowa's Content Network teams used documentation forms to record their review of research studies in reading, mathematics, and science. All reviews are on the Content Network website. Because the teams provided extensive detail regarding each study, their reviews will provide enough information in most cases to determine if the content is relevant to your goals and student needs. To see a brief summary and the reviews, go to the Content Network website: http://www.state.ia.useducate/ecese/tqt/tc/prodev/main.html

As you study the example of a completed review form, you will notice that the Content Network reviewers described the key elements of the study, summarized the findings, and rated the quality of the studies.

Activity Process – Documenting Scientifically Based Research

1. Read the Documentation Form for "Effects of a Cooperative Learning Approach in Reading and Writing on Academically Handicapped and Nonhandicapped Students" by Robert J. Stevens and Robert E. Slavin.
2. After reading the documentation form, complete the Discussion Guide.

The following pages:
- ❑ Sample of a completed Documentation Form
- ❑ Discussion Guide
- ❑ Blank Documentation Form

Tool 2(content).2. Scientifically Based Research Activity, (p 2 of 6)

Sample Completed Form

Documentation of Structured Analysis for Selecting Scientifically Based Research: Instructional Strategies and Programs

Reviewer(s) *Deb Hansen and Bev Showers* **Date Reviewed** *May 15, 2003*

Title of Study/Meta-analysis: *Effects of a Cooperative Learning Approach in Reading and Writing on Academically Handicapped and Nonhandicapped Students*

Author(s): *Stevens, Robert J. and Slavin, Robert E*

Source, Publication Date & Pages: *Elementary School Journal , Vol.95, #3, 1995*

Is this source (journal or book) refereed? Yes √ No

1. What is the name or title of the instructional strategy/model, program, material, or intervention? What was the research question? What was the intended outcome of goal?

   Name/Title: *Cooperative Integrated Reading Awareness and Composition Program (CIRC)*

   Research Question:
   - *To investigate the effects of CIRC on student metacognitive control*
   - *To study long term flexible use of comprehension strategies,*
   - *To extend the study beyond 3rd and 4th grade,*
   - *To investigate academic and social outcomes as an approach to supporting students with disabilities in an inclusive environment*

   Description of subjects: (Include # of participants, age, SES, etc.)
   - *2nd through 6th grade, 1,299 students in Maryland, working class population*
   - *0 to 10% minority*
   - *6 –13 % low SES*
   - *11% LD in experimental group (control group 10% LD)*
   - *12% of school total school population is LD*

2. Describe the strategy/model, program, material, or intervention.
   A comprehensive reading program including
   - *Cooperative learning in elementary reading and language arts (in heterogeneous groups and including cognitive apprenticeship)*
   - *Explicit instruction on comprehension strategies, using writing process to teach reading and language arts including: story related activities, direct instruction in comprehension, and integrated writing and language arts.*

3. Describe the design of the study (sample selection, assignment to treatment, controls, length of intervention, etc.)
   - *31 classrooms experimental, 32 classrooms nonexperimental*
   - *Matched for SES, ethnicity, achievement*
   - *Nonequivalent control group – Design #10*
   - *All teachers were volunteers. Experimental classrooms integrated academically handicapped students and used CIRC as the instructional treatment. Control classrooms used district's basal series with two to three reading groups and academically handicapped students were pulled out for instruction by special education teachers.*

4. What instruments were used to collect data and what metric(s) (effect size, tests of significance, etc.) were used to report results? (Include all measures of dependent variable as well as implementation, attitudes, etc.)
   - *California Achievement Test (CAT) Form C/E*
   - *Informal Metacognition Index of Reading Awareness*
   - *Attitude inventory on attitudes toward reading and writing*

Tool 2(content).2. Scientifically Based Research Activity, (p 3 of 6)

5. Briefly describe and summarize the results of the study.

   Positive results for experimental classes.
   Year 1:
   - *Post test (total population) = effect size +.22 for vocabulary, +.24 for reading comprehension*
   - *Post test for special education = effect size .+4 for reading, + .31 for reading comprehension*

   Year 2:
   - *Post test (total population) = effect size +.20 for vocabulary, +.26 for reading comprehension, +.26 for language expression*
   - *Post test for special education = effect size +.37 for reading, + .32 for reading comprehension.*
   - *Significant effect for experimental group on metacognition test (p<.01)*
   - *No significant difference between treatment and control groups on attitudes toward reading and writing.*

6. Did the study include an evaluation of how the intervention was implemented? Did implementation data address both the frequency of use as well as the integrity of the implementation?
   No: _____ Yes: √ If yes, briefly describe.

   Teachers were observed periodically (frequently in first six weeks, less frequently during remainder of year.)

7. Were gains in student achievement reported?
   No: _____ Yes: √ If yes, briefly describe.

   See results above

   If student achievement gains were reported, were they sustained over time?

   Yes--gains were reported over a 2-year period.

8. Replication: Did the study cite previous tests of this treatment? Is this study a replication of an earlier study?

   No: _____ Yes: √ If yes, briefly describe.

   - *2 previous studies*
   - *CIRC increased student achievement in reading and language arts in 3rd and 4th grade over 12-24 weeks*

Summary: Rating _____*4*_____Design (scale: 1-5)

This is a 2-year study to determine long-term effects of cooperative learning approach to elementary reading and language arts instruction. The Cooperative Integrated Reading and Composition (CIRC) program was provided to 2nd – 6th grade students. Students with disabilities were included in the regular classroom and in the cooperative learning team activities. Heterogeneous learning teams worked on reading and writing activities related to stories they were reading, including explicit instruction on comprehension strategies, a writing approach to teach reading and language arts. First-year results indicated CIRC students had significantly higher achievement in reading vocabulary and reading comprehension. Second-year results indicated that CIRC students had significantly higher achievement in vocabulary, comprehension, and language expression. Results suggested that CIRC students had greater metacognitive awareness than their peers. Students with disabilities in CIRC classes demonstrated significantly higher achievement in reading vocabulary, reading comprehension, and language expression than did comparable special education students receiving instruction in traditional settings.

Tool 2(content).2. Scientifically Based Research Activity, (p 4 of 6)

Discussion Guide for Reviewing a Completed Documentation Form

After studying the documentation form that provides a review of a scientifically based research article, address the questions below. Share your responses with a partner.

1. What did you notice about the research strategy you reviewed?

2. What did you notice about how the review of this study was organized?

3. What type of information did you find in this review that would be critical in helping you to consider an instructional strategy for professional development?

4. Did reading the documentation form about this study raise additional questions? If yes, what might you do to get answers to your questions.

5. Finding a review of a highly rated study of a strategy that aligns with your professional development target will not give you enough information to select content. Why not? What else will you need to know?

Tool 2(content).2. Scientifically Based Research Activity, (p 5 of 6)

Blank Form for Documentation of Scientifically Based Research

Reviewer(s)_____ **Date Reviewed** _____

Title of Study/Meta-analysis_____

Author(s): _____

Source, Publication Date & Pages: _____

Is this source (journal or book) refereed? Yes_____ No _____

1. What is the name or title of the instructional strategy/model, program, material, or intervention? What was the research question? What was the intended outcome of goal?

   Name/Title:

   Research Question:

   Description of subjects: (Include # of participants, age, SES, etc.)

2. Describe the strategy/model, program, material, or intervention.

3. Describe the design of the study (sample selection, assignment to treatment, controls, length of intervention, etc.)

4. What instruments were used to collect data and what metric(s) (effect size, tests of significance, etc.) were used to report results? (Include all measures of dependent variable as well as implementation, attitudes, etc.)

Tool 2(content).2. Scientifically Based Research Activity, (p 6 of 6)

5. Briefly describe and summarize the results of the study.

6. Did the study include an evaluation of how the intervention was implemented? Did implementation data address both the frequency of use as well as the integrity of the implementation?

No: _____ Yes: _____ If yes, briefly describe.

Were gains in student achievement reported?

No: _____ Yes: _____ If yes, briefly describe.

If student achievement gains were reported, were they sustained over time?

8. Replication: Did the study cite previous tests of this treatment? Is this study a replication of an earlier study?

No: _____ Yes: _____ If yes, briefly describe.

Summary: Rating _____Design (scale: 1-5)

If the article or report doesn't provide the information needed to answer the questions above you should call or email the author. It is not uncommon for publishers to drastically cut essential information out of articles before publishing them.

If you do contact the author or other research staff of this study, include the following information:

Name of contact:_____

Phone number:_____

Agency:_____

Summary of conversation: _____

Tool 2(content).3. How to Use the Content Network Website, with Activity (1 page)

How to Use the Content Network Website

The Content Network Website is organized to provide access to research reviews in the areas of reading, mathematics, and science.

The following activity is designed to give users an opportunity to interact with the materials that can be found on the website. The process described below is one way a school might use the information found on this website. The activity may be done independently or with a group. If conducted with a group, arrange to project the web site to enable participants to view the demonstration.

Activity:
Log onto the Iowa Department of Education webpage to access the Iowa Professional Development Content Network Website: http://www.state.ia.us/educate/ecese/tqt/tc/prodev/main.html

- ❑ Review the welcome and introductory information on the home page.
- ❑ Review what is included on each page by selecting the buttons provided on the Resources Bar at the top of the screen.
  - **About This Project**: This page explains the purposes and intent of the Content Network and a rationale for using scientifically based research. The procedures used to develop the Content Network and conduct the research reviews are described in this section.
  - **Selecting Content:** This page offers a process that may be followed by local districts for selecting content. An approach for deciding on what to study further and how to review research studies is explained.
  - **Definitions:** The definition of scientifically based research is presented, along with the criteria for rating the quality of the research.
  - **Upcoming Additions**: This page lists new items that will be provided and anticipated changes to the Content Network site.
  - **Links/Resources:** Links are included for various resources that will assist with selecting content.
  - **Help:** Directions on how to access information on the site are provided.
- ❑ Return to the home page and notice the buttons for Reading, Mathematics, and Science.
- ❑ Select one content area by clicking on the icon for that area and review the background information about the content area.
- ❑ To see a selection of studies to review click on the grade level range you are interested in. You will see a list of strands at the top of the page and a list of article titles with summaries at the bottom of the page. Selecting a strand and then clicking on an underlined title will lead you to the research reviews and ratings.
- ❑ To become familiar with the site, pick a content area, grade level range and strand. Find a title that is of interest to you and skim the summary, quality of research, and review of research.
- ❑ Discuss with a partner what you discovered as you read through the documentation about the study you chose.
- ❑ Discuss as a group how you might use the web site to support the selection of content for a professional development focus.

Notes

Tool 2(content).4. Examples of Processes for Selecting Content (p 1 of 5)
Example 1: Winfield-Mount Union & AEA 16
Example 2: Mid-Continent School District

Examples of Processes for Selecting Content

The following narrative is a record of one person's approach to selecting staff development content for an identified need. Although other processes may legitimately be taken when selecting staff development content, certain principles apply to all such searches:

Selection is a Critical Decision

- The selection of appropriate content for a district or school staff development program is one of the most critical decisions to be made. If the content does not have a solid research base, the district/school risks considerable expenditure of time, resources, and effort on learning, implementing and evaluating something that does not yield the desired effects.

Match Student Achievement Goals to Content

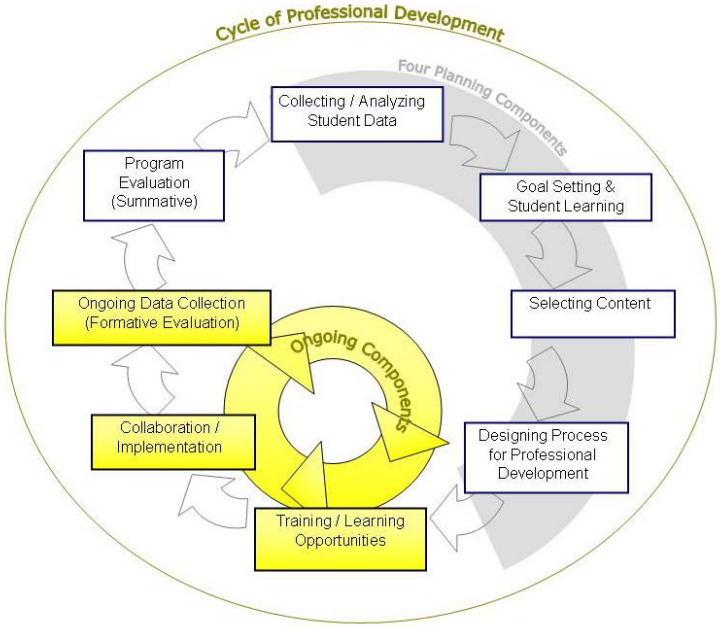
- Finding a good match between district/school goals for student achievement and content likely to achieve those goals is not a simple process. The profit motive often drives the claims made by commercial interests for their products, and personal ideologies can affect both the research undertaken and the results obtained by researchers as they pursue evidence for their beliefs. Unfortunately, there is not a simple index one can consult that states, "If your ninth-grade students are struggling with Algebra I, the three most powerful remedies are 'x', 'y', and 'z'."

Invest Time in Searching for Appropriate Content

- Investing time in the search for appropriate staff development content is time well spent. Spending the time and resources to investigate the research-based options that address your students' needs for improvement greatly increases the likelihood that a district/school staff development process will be successful.

As you read on the following pages about two school districts – Mid-Continent School District and Winfield-Mount Union – make notes about specific details that demonstrate "best practice" in these Iowa PD Model components:

Collecting and Analyzing Data
Goal Setting and Student Learning
Identifying Research Based Content
Training and Implementation



Tool 2(content).4. Examples of Processes for Selecting Content (p 2 of 5)

Examples of Processes for Selecting Content, presented by Dr. Beverly Showers: Iowa Professional Development Technical Assistance Seminar Series Training Materials, October 2003

Example 1: Mid-Continent School District

What is the District/School Goal for Improvement Student Learning?

After analyzing its student achievement data, the Mid-Continent School District discovered a distressing pattern in its reading scores: total reading scores were declining through the grades. Thus, while 81% of elementary students were deemed proficient (using the state's criterion for proficiency), 65% of middle school students and 61% of high school students were scoring at the proficient rate. Closer examination of the data revealed that many of their students were struggling with higher-order comprehension tasks, or what NAEP defines as "the ability to interrelate ideas and make generalizations" (Campbell, Hombo, & Mazzeo, 2000). When special education, low socioeconomic status and English language learner subgroups were examined, the trend of declining scores was even more pronounced.

The Mid-Continent School District set Annual Yearly Progress goals for reading, using the state's trajectories (as negotiated with the federal government under No Child Left Behind guidelines). Its middle and high schools, however, set goals to rapidly increase the numbers of students able to engage successfully in higher-order comprehension tasks.

Is There Scientifically-Based Research on Teaching Higher-Order Comprehension Skills to Secondary Students?

What is available to address this need? Entering the research base in any specific area can be a bit overwhelming at first. Mid-Continent needed a plan that would enable it to identify choices in curriculum and instruction that addressed its need and had strong evidence supporting its efficacy in the area they wanted to improve.

Although this example was generated by a single individual working alone, it is strongly suggested that a committee (three to six members) work together to study the research base and generate options for consideration by the staff. Thus, one or two people can search data bases, one can locate and copy relevant articles, and one or two can read and summarize the articles. Dividing the labor makes this a much easier task.

Look at the Work of Others Who Share Your Agenda

One way to enter the research base without being swamped by the sheer volume of published material is to begin with the work of others who have already begun the work of reviewing research in a given area. Mid-Continent started with three sources:

- ❑ The Iowa Content Networks (with its links to other reviews of research);
- ❑ *Reading Research Quarterly* (the primary research publication of the International Reading Association); and
- ❑ *Review of Educational Research* (a journal published by the American Educational Research Association that is devoted entirely to reviews of research on specific topics).

Mid-Continent stopped here to summarize general findings and trends. At this point it appeared that several instructional strategies had strong research support for teaching advanced comprehension skills to adolescents (e.g., inductive strategies, activating prior schema, reciprocal teaching, independent reading with student choice of books, vocabulary teaching strategies, think alouds, and collaborative discourse.) It appeared that, given the multiplicity of student learning preferences in any classroom and the prior learning histories of struggling adolescent readers, a successful intervention needed to incorporate a variety of powerful instructional strategies.

A general note in terms of process: Try to get a general feel for a body of work, rather than going immediately for the "one right answer." Assume such a search is going to take a couple of days, and consider it time well spent if an entire staff will then invest a year of their time and energy studying, learning, implementing, and evaluating the product of the search. When reading reviews, also mark promising references that you may want to read in full.

Tool 2(content).4. Examples of Processes for Selecting Content (p 3 of 5)

Sources of Additional Information Mid-Continent Considered Before Decision- Making

Educational Laboratories and Centers. The federal government funds educational laboratories and centers around the country, many attached to universities. It is the mission of these labs and centers to conduct research in education. The web site www.ed.gov/prog_info/Labs/ links to all the federally funded educational laboratories. The site provides links to several labs currently conducting research in reading and provides some very useful reading.

Johns Hopkins Center for Social Organization of Schools had a very useful review of research on both reading and math for high school freshmen struggling with those subjects. The full text of the article provided a very useful summary of the needs of such students as well as the remedies available.

Note: When reviewing articles that have not gone through a review process, be aware that there may be mistakes or omissions. When authors are cited in text but missing in references, go to ERIC or EBSCO to find the reference.

Publishers' Websites. Some publishers hire researchers to evaluate the impact of their programs on students. Although some dismiss any research conducted by a publisher or commissioned by a publisher, judge such research on a case-by-case basis (e.g., examine the quality of an actual piece of research before drawing conclusions about the strength of its findings).

An example of such research is on the web site at www.scholastic.com on its secondary reading program READ 180. After reading the information on their web site, the publisher was asked for the technical report of the initial study conducted on this program and was willing to send the report.

ERIC and EBSCO. ERIC and EBSCO are data bases that list references (and sometimes, full text) for articles published in educational journals, conference presentations, reports published by foundations, labs and centers, etc. Both data bases provide abstracts of reports and articles listed. When full text is not available on EBSCO, the reference can be found in ERIC, and the document needed can be ordered or located in a college library.

Summary of Sources. The sizes of these data bases are simultaneously their strength and weakness: if one is imprecise when requesting information, a search can yield thousands of articles, many of which are neither research nor on your topic. Nevertheless, these are invaluable resources for identifying research in a given topic.

Fewer programs exist at the secondary level than at the elementary level. There are, however, many studies of effective instructional strategies in this area. That left Mid-Continent School District with the choice of choosing from a few already developed secondary reading programs or developing one by learning a combination of powerful instructional strategies.

The benefits of choosing an already developed program were obvious. Someone else has already gone through the trial and error of combining various strategies and programs and testing the entire program to determine its effectiveness. A second benefit is the relative ease of getting training in one place for a developed program. However, as mentioned earlier, there are not as many choices at the secondary level.

Identify Options

The next step for Mid-Continent School District was to summarize the findings of their search and to collect the relevant articles/studies before presenting options to a decision making body. The presentation to the group might begin like this: "We have identified three programs and six strategies (plus some promising practices) that are strongly supported by research. Secondary students have repeatedly improved their reading comprehension skills when taught with these programs and strategies. We have divided you into six teams – three teams will each get the best report of a program, and each of the other three teams will get the best study for each of two strategies. Before our next meeting, analyze your reports/articles and come prepared to summarize the findings and make recommendations for the faculty (or committee or board)."

Get Information on Costs (For Training And Materials) and Availability of Trainers

Once the decision-making body had ranked its choice, the top three choices were selected, and information was collected on costs for materials and training. This information assisted the decision-making group in making a final decision.

Insert your choice into the "Select Content" section of the Iowa Professional Development Model and begin!

Tool 2(content).4. Examples of Processes for Selecting Content (p 4 of 5)

Example 2: Winfield-Mt. Union and AEA 16

This example describes a process used by Winfield-Mt. Union Community School District and Area Education Agency 16. By following the Iowa Professional Development Model, this process enabled the district to be deliberate in its selection of staff development content for the school year.

After recognizing they needed key district components in place, Winfield-Mt. Union enlisted the assistance of consultants from AEA 16 to guide them in the professional development cycle. The AEA Assessment Consultant led District leaders through an educational process that helped them align their Annual Progress Reports and Comprehensive School Improvement Plan with the No Child Left Behind requirements. The District also reevaluated and tightened its Standards and benchmarks to reflect further alignment.

In the meantime, the District established a Professional Development Leadership Team, which consists of lower elementary, upper elementary, secondary core, secondary elective, special education teachers, an administrator, and the Districts' school improvement coordinators. The District team is partnered with an AEA 16 team to pilot the Iowa Professional Development Model and to attend training institutes. Additionally, AEA 16 has a Partnering for Improvement initiative for all AEA 16 districts, guiding teams from those districts through each component of the Iowa Professional Development Model. The Winfield-Mt. Union Leadership Team participated in this initiative, which helped them in developing professional development efforts when they returned to their district.

The first step in the District Leadership Team's process was to study Iowa Tests of Basic Skills, Iowa Tests of Educational Development, District Developed Assessments, and ICAM data. The AEA Assessment Consultant facilitated this process.

As a result of this analysis, District data indicated many areas in which professional development could be focused. However, the team wanted to select an area in which all teachers, regardless of grade level or content area, could relate to and apply to their respective classrooms. Because vocabulary was identified as needing improvement throughout K-12, the leadership team selected it as an appropriate content area for their staff development focus.

The district committed to setting aside ten full professional development days for the school year. Keeping the guidelines for the "simultaneity" operating principle of in mind, the leadership team planned that the major portion of the staff development time would be devoted to the training and collaboration needed to implement with fidelity the vocabulary strategies chosen.

With the time set aside for training, the leadership team's next step was to collaborate with AEA 16 to determine how external content area support could be provided to the district. It was decided that two reading consultants from the AEA would provide the content for the district's yearlong staff development sessions.

At the request of the district leadership team, the AEA was asked to obtain six of the most effective vocabulary strategies that had a scientific research base and that had already been reviewed. An overview of these strategies would be shared with the district leadership team before deciding which of the strategy overviews to share with the entire staff. Because of the short turn-around time between content selection and the onset of training and implementation, the decision was made to only look at strategies that had already been studied. Research was selected by the AEA consultants who resourced the Iowa Professional Development Reading Content Network's findings, as well as independently seeking scientifically based studies. Only studies that received a 4 or 5 rating were considered.

After the AEA reading consultants selected studies to share with the leadership team, the team decided it needed to see additional studies before making their decision. With a final broad sampling of strategies with a scientific research base to choose from, the leadership felt it was ready for the strategy overviews to be shared with the whole staff that would be involved in the staff development trainings.

Tool 2(content).4. Examples of Processes for Selecting Content (p 5 of 5)

At the staff development session attended by all K-12 teachers and administrators, the AEA consultants gave a one-hour overview of each of the strategies that included how each could be applied in multiple subject areas and across multiple grades. Following the presentations, the staff met in focus groups to collaborate and share reactions to the strategies presented. All teachers had an opportunity to voice their opinions in the

focus group before key points were shared when the large group met to make a decision. This participative decision-making resulted in the strategy that was selected for this year's professional development focus.

The training sessions have begun and include opportunities for theory, demonstration, practice, and feedback in each day's workshop experience. Tools for collecting implementation data are being used, and a method for monitoring implementation is taking place. Plans to study the data at the end of the 10-week experiment frame are present to determine the design for the remaining staff development sessions. A key component to the effectiveness of Winfield-Mt. Union's implementation of this strategy is the commitment of the district to provide opportunities for collaboration. Collaborative teams of four include teachers from cross grade and subject levels. For example, a high school chemistry teacher, a middle school language arts teacher, and a kindergarten teacher might be represented on one team.

The district is looking ahead to how the successful implementation of this strategy can be sustained while considering the next area on which to focus its attention. It knows, however, that it will begin the process again by looking at its data and selecting content with a strong scientific research base that best matches its need—for both students and teachers.

Notes

Tool 2(content).5. Operating Principles for Selecting Content

Attention to Operating Principles For Selecting Content for Professional Development

List actions taken to select content for professional development that provides teachers adequate time to learn new knowledge and skills. Identify actions needed to ensure that this component of the Iowa Professional Development Model is fully supported. Consider possible pitfalls and strategies to avoid them.

Focus on Curriculum, Instruction and Assessment:

Actions Taken:

Actions Needed:

Participative Decision Making:

Actions Taken:

Actions Needed:

Simultaneity:

Actions Taken:

Actions Needed:

Leadership:

Actions Taken:

Actions Needed:

Notes

Student Achievement Through Staff Development
The Design of Training and Peer Coaching

From Joyce, B. & Showers, B. *Student Achievement Through Staff Development – Fundamentals of School Renewal.* Read the selection below; then as a group, use the Discussion Guide following the selection to process what you have read.

Training Components

Several elements are at our disposal. The first component is an exploration of theory through discussions, readings, lectures, etc.; this is necessary for an understanding of the rationale behind a skill or strategy and the principles that govern its use. Study of theory facilitates skill acquisition by increasing one's discrimination of the demonstrations, by providing a mental image to guide practice and clarify feedback, and by promoting the attainment of executive control.

The demonstration of modeling of skill is the second component; it greatly facilitates learning. Skills can be demonstrated in settings that simulate the workplace, either mediated through film or videotape, or conducted live in the training setting. Demonstrations can be mixed with explanation; the theory and modeling components need not be conducted separately. In fact, they have reciprocal effects. Mastery of the rationale of the skill facilitates discrimination, and modeling facilitates the understanding of underlying theories by illustrating them in action.

The third component is the practice of skill under simulated conditions. The closer the training setting approximates the workplace the more transfer is facilitated. Considerable amounts of skill can be developed, however, in settings far removed from and different from the workplace. "Peer teaching" (practice with other teachers) even has advantages. It provides experience as a "student", enables trainees to profit from one another's ideas and skill, and clarifies mistakes. Peer teaching and practice with small groups of children are safer settings for exploration than a full classroom. How much practice is needed depends, of course, on the complexity of the skill. To bring a model of teaching of medium complexity under control requires 20-25 trials in the classroom over a period of about eight or ten weeks. The more simple skills, or those more similar to previously developed ones, will require less practice to develop and consolidate than those that are more complex or different from the teachers' current repertoire.

Peer coaching, the fourth component, is the collaborative work of teachers to solve the problems/questions that arise during implementation; it begins in training settings and continues in the workplace following initial training. Peer coaching provides both support for the community of teachers attempting to master new skills and the time for planning and lesson development so essential to changes in curriculum and instruction.

Research on Training

Training, of course, does not exist outside a context. As described in earlier chapters, a process must be in place to decide what will be the substance of the training, who will provide training, when and where the training will be held and for what duration. The norms of the workplace impinge on the receptivity of participants to various configurations of training experiences, as do labor-relations histories and interpersonal relationships among participants. We have less data on the impact of many of these environmental and governance variables on the effectiveness of training than we have on actual training components. However, we recommend the participatory governance modes described in chapters 2, 3 and 6 to increase understanding of both the content and why it was selected for each component.

Tool 2(proc).1. Student Achievement Through Staff Development (p. 2 of 4)

Also, as we discussed in chapter 3, we believe that cohesiveness and strong leadership in the school are critical to the success of training. The best trainers, working with the most relevant and powerful content, will find little success or receptivity in poor organizational climates. However, good climates and high motivation will not substitute for well-designed training. Fortunately, we can assert that research and experience have reached the point where we can state that, for specific training outcomes, certain training components or combinations of components proved optimal conditions for learning. Essentially, nearly all teachers can master a wide range of teaching skills and strategies provided that the training is well designed and the climate of the school facilitates and promotes cooperative study and practice.

Hence, designers of training must answer several questions before planning any training experience. For whom is the training intended and what is expected to result from the training? Is follow-up to training built into schools as a permanent structure or must follow up be planned and delivered as part of the training package? Does the content of the training represent new learning for participants or is it an attempt to refine existing knowledge and skills?

Also, designers need to decide which training components will be used and how they will be combined. These components include the presentation of information or theory about the topic of the training, live and mediated demonstration or modeling of new skills and teaching models, and opportunities for practice of new skills and strategies in the training setting as well as in the workplace. Peer coaching of new skills and strategies, which largely occurs in the workplace, ideally is taught and practiced in the training setting as well.

Research on training provides some interesting insights into the efficacy of various training components and particularly, combinations of them (Bennett, 1987; Showers, Joyce, & Bennett, 1987) (see Table 7.1). Information or theory-only treatments increase knowledge by an effect size of about .50 between them (one-half of a standard deviation on a normal curve), whereas theory combined with demonstrations, practice, and feedback results in an effect size of 1.31 for knowledge, compared with about .63 if presentations alone are employed (Bennett, 1987).

Effect Sizes for Training Outcomes by Training Components

	Training Outcomes		
Training Components & Combinations	Knowledge	Skill	Transfer of Training
Information	.63	.35	.00
Theory	.15	.50	.00
Demonstration	1.65	.26	.00
Theory Demonstration	.66	.86	.00
Theory Practice	1.15		.00
Theory Demonstration Practice		.72	.00
Theory Demonstration Practice Feedback	1.31	1.18	.39
Theory Demonstration Practice Feedback Coaching	2.71	1.25	1.68

When skill is the desired outcome of training, the advantage of the combinations is equally clear. Theory or demonstration alone results in effect sizes for skill of around .5 and .26 respectively for refining existing skills, lower for new skills. Theory, demonstration, and practice combined result in an effect size of approximately .7 for skill, whereas theory, demonstration, practice, and feedback combined result in an effect size of 1.18. When in-class coaching is added to the theory, demonstration, practice, and feedback, skill continues to rise.

Tool 2(proc).1. Student Achievement Through Staff Development (p. 3 of 4)

Strangely, the question of transfer of training has been asked much less frequently in research on training than has the question regarding skill acquisition. Consequently, many fewer studies of training have measured transfer effects than have measured skill acquisition. Perhaps the assumption has been that skill, once developed, would automatically be used in classroom instruction. Recent analyses of the literature on training confirm what many trainers, teacher educators, and supervisors have long suspected-transfer of learned knowledge and skill is by no means a sure bet. In studies that have asked transfer questions (e.g., did participants use new skills in the classroom, did they use them appropriately, did they integrate new skills with existing repertoire, and was there long-term retention of the products of training?), several finding emerge. First, the gradual addition of training elements does not appear to impact transfer noticeably (effect size of .00 for information or theory; theory plus demonstration; theory, demonstration and feedback; effect size of .39 for theory, demonstration, practice, and feedback: However a large and dramatic increase in transfer of training – effect size 1.68 – occurs when in-class coaching is added to an initial training experience comprised of theory explanation, demonstrations, and practice with feedback.

We have concluded from these data that teachers can acquire new knowledge and skill and use it in their instructional practice when provided with adequate opportunities to learn. We have hypothesized, further, that fully elaborated training systems develop a “learning to learn” aptitude and that, in fact, individuals learn more efficiently over the long-term by developing the metacognitions that enable self-teaching in settings where essential training elements are missing.

Implications for Staff Development Practice

We have drawn several conclusions from the research on training that have implications for staff development programs serving individuals, schools, and systems:

First, regardless of who initiates a training program, participants must have sufficient opportunity to develop skill that they can eventually practice in classroom settings.

Second, if the content of training is new to trainers, training will have to be more extensive than for substance that is relatively familiar.

Third, if transfer of training is the objective, training must include the facilitation and structure for collaborative relationships that enable teachers to solve the implementation problems.

Tool 2(proc).1. Student Achievement Through Staff Development (p. 4 of 4)

Discussion Guide: The Training Design

As you review the research table below, what is a key learning for each of you? Discuss the questions following the table as a group and make a list of ideas you want to remember to include in your Professional Development Process design

Outcomes of Training Design Reported in Effect Sizes

Training Components	*Knowledge*	*Skill*	*Transfer of Training (Implementation)*
Theory/Information	.63	.35	0
Theory/Information/ Demonstrations	1.65	.26	0
Theory/Information/ Demonstrations/Practice	1.31	1.18	.39
Theory/Information/ Demonstrations/ Practice Peer Coaching (Collaboration)	2.71	1.25	1.68

Joyce, B. and Showers, B. (1995). *Student Achievement Through Staff Development*, 2nd ed. White Plains, NY: Longman Publishers.

1. Theory — in the form of lectures, readings, discussions, etc. — is often the least preferred part of training sessions. Would it be more efficient to dispense with this part of training?

2. Discuss three ways to get more demonstrations into training settings when you are learning new instructional strategies.

3. What, besides classroom trials, would constitute “practice” with new knowledge and skills in the area of curriculum, instruction and assessment?

4. In many settings throughout the country, peer coaching is thought to mean observation and feedback, or, in other words, the classic evaluation format. Showers and Joyce, however, designed the collaborative activity in an effort to increase the implementation of innovations in educational settings and thus focused the collaborative activity on the planning and development of lessons, the study of student work, and the building of companionship, which is so important when solving the problems of implementation. Discuss the pros and cons of these two approaches to teacher collaboration, when the object of the activity is the implementation of new learning in the classroom.

5. If your faculty had 20 teachers, and three of them were already knowledgeable about three instructional strategies the faculty had decided to add to its reading program (e.g., *Think Alouds* for comprehension, *Numbered Heads Together* for vocabulary meaning, and *Pair/Share* for discussion of independent reading), how would you design the collective training sessions for your faculty.

List on the back of this sheet any key ideas you want to remember from this discussion for your process design.

Tool 2(proc).2. Design of Professional Development (one page)

Design of Professional Development

The Professional Development Team determines how they will provide theory and give teachers opportunities to see multiple demonstrations of the strategy they are learning. Their planning includes ways to build in opportunities to practice the strategy as well as the organization and structures for setting up collaborative teams in the workplace. The planning form below is used to record the professional development design. This planning form may be used at the district and building level.

District:_____

School_____

AEA:_____

Content Selected:

Theory

Demonstrations

Opportunities for Practice

Organization and Structure for Collaborative Teams in Workplace

Tool 2(proc).3. Alpha District Case Study (p. 1 of 3)

Alpha School District Case Study – Read and Discuss Activity

Read the case study below. Highlight or make notes where you see examples of the Operating Principles for Designing Professional Development.

When you finish your reading, discuss the items on the Structured Response Discussion sheet, referring to the Operating Principles as appropriate.

When the object of professional development is accomplishing specific student achievement goals, designing professional development means more than planning a workshop. The content selected for professional development must align precisely with student needs for growth, learning opportunities must provide sufficient knowledge and skill to enable classroom implementation of new learning, the workplace must be organized to support teacher collaboration as they solve the issues presented by implementing new learning, and appropriate interim student measures must be administered so that student learning can guide teacher collaboration and implementation efforts. The planning and energy required by this broader vision of the staff development process, however, cannot short-circuit the careful planning of learning opportunities. In the following example, we illustrate the components of the training model for one type of professional development content.

Data and Objectives

After careful study and analysis of its student achievement patterns, alpha district has concluded that while the majority of its students appear to meet minimum standards for proficiency in reading and math, many are achieving at a very average level. Item analysis of standardized test data indicate the majority of students miss items requiring higher order thinking and reasoning skills. Furthermore, this phenomenon worsens at the middle and high school levels, when student maturity and the demands of the curriculum are at their highest level. The leadership team of the alpha district decided to consciously address student needs for complex thinking and reasoning skills through their staff development program, and to measure student progress by focusing on the subset of test items requiring higher order thinking skills in reading and math.

Selecting Content and Providers

Careful analysis of research on strategies and programs with a history of increasing higher-order thinking skills resulted in the selection of inductive teaching strategies and their corollary cooperative learning strategies. While Alpha District's AEA agreed to serve as the "approved provider" to support the entire professional development cycle, and an expert in inductive and cooperative strategies was hired to provide training in the staff development content.

Designing Learning Opportunities

The Alpha District's leadership team worked with the expert trainer to design a series of learning opportunities for district teachers. Specifically, they examined the *theory* that would need to be understood, the types of *demonstrations* that would be necessary, and the types of *practice* that could be provided during workshops.

Tool 2(proc).3. Alpha District Case Study (p. 2 of 3)

Theory

The Alpha District leadership team wanted to accomplish two things with this component of the training. While they had thoroughly investigated the research underlying inductive and cooperative strategies, the majority of district teachers had seen only an overview. They asked the trainer to begin the theory component with a review of the literature on the effects of the inductive and cooperative strategies that would be learned in the workshop. Their belief was that a thorough understanding of this research base would help teachers set high expectations for student intellectual behavior and justify the time and energy required to learn and implement them. They also requested that the trainer include in her presentation the theory, or explanation, for why inductive thinking and cooperative strategies work; e.g., information about how the brain processes information as well as the social nature of learning.

Demonstrations

While the leadership team acknowledged that measurement of student learning would focus on reading and math, they expected teachers of all subjects to work toward the collective objective of increasing student thinking and reasoning skills. They therefore requested that demonstration lessons of inductive thinking and cooperative learning include examples in language arts, math, science, social studies, and foreign language. The leadership team realized that demonstrations in every subject at every grade level would not be possible, given the time constraints of workshops, but they wanted enough variety in the demonstrations to enable teachers to see multiple possibilities for application.

Practice

Given the importance of early practice when learning new skills, the leadership team then discussed with the expert trainer ways in which practice could be worked into the workshop settings. After brainstorming and discussing multiple options, they settled on the following plan.

First, teams of four teachers would be provided four inductive thinking lessons. Each individual would have time to study the lesson they were to teach, and then each teacher would practice teaching an inductive lesson to rest of his/her group.

Second, small groups of “job-alike” teachers would design lessons using their own curricular materials and then share the products of their initial development. In this manner, everyone would have an opportunity to test their own understanding of the new strategies and would leave the workshop prepared to practice immediately in their classrooms.

Third, collaborative teams would be formed in the workshop so that initial practice in lesson development could be supported by workshop facilitators. By providing a structure for collaborative work and supporting it in the workshop, teacher teams would be prepared to continue this work in their school settings.

Fourth, expectations for initial classroom practice would be stated and commitments to practice solicited.

Finally, follow-up training sessions would be scheduled (more frequently for the first few months of implementation) in order to support early practice with the newly learned strategies.

Collaboration, Implementation, and Evaluation

To implement new learning requires collegial support in the workplace and the study of implementation patterns in conjunction with interim measures of student learning. It is critical that training and learning opportunities provide teachers the knowledge and skills necessary to engage in authentic implementation efforts.

Tool 2(proc).3. Alpha District Case Study (p. 3 of 3)

Structured Response Discussion Guide

The study of the Alpha District is organized based on the components of the Iowa Professional Development Model cycle. Discuss where you see evidence of the Model's Operating Principles in the Alpha Case Study.

Participative Decision-Making

Focus On Curriculum, Instruction, And Assessment

Simultaneity

Leadership

What implications does this discussion have for your local design decisions?

Tool 2(proc).4. Operating Principles for Designing PD Process (one page)

Attention to Operating Principles For Designing Process for Professional Development

List actions taken to design a process for professional development that provides teachers adequate time to learn new knowledge and skills. Identify actions needed to ensure that this component of the Iowa Professional Development Model is fully supported. Consider possible pitfalls and strategies to avoid them.

Focus on Curriculum, Instruction and Assessment:

Actions Taken:

Actions Needed:

Participative Decision Making:

Actions Taken:

Actions Needed:

Simultaneity:

Actions Taken:

Actions Needed:

Leadership:

Actions Taken:

Actions Needed:

Notes

Tool 2(cycle).1. Implementation Plan Worksheet (one page)

Implementation Plan Worksheet
Your Implementation Plan

A thorough implementation of professional development content must be purposeful – it requires planning. Best practice would indicate that written implementation plans should be developed at the district, building and individual teacher level. *The only written plan required to be submitted to the Department of Education, however, is the District Career Development Plan (DCDP) which is embedded in the Comprehensive School Improvement Plan.*

Working from the district student achievement goals and the District Career Development Plan, implementation will be more successful if teachers have a clear vision or target of what is expected for full implementation in a written plan. Examples of Implementation Plans might include descriptions of what the planned change will look like in the classroom; expectations and timelines for the organization, frequency, agenda and data collection requirements of collaborative team meetings; the role of the building principal, Building Leadership Team, and support staff; the role of central office staff; procedures for collecting student impact data; etc.

Implementation Plan Worksheet

Your Implementation Plan represents initial agreements regarding use of new curriculums, strategies, programs, etc. It enables you to make judgments about levels and fidelity of use of staff development content. After completing the worksheet, you will be prepared to design the appropriate data collection tools for your own implementation plan.

I. Strategy/curriculum/program to be implemented (your planned change).

II. Did developers of, or research on your planned change suggest guidelines for frequency of use within your educational program? If yes, what are the suggested guidelines?

III. Is your planned change an addition to existing practice or does it replace existing practice? Please explain.

IV. Describe the implementation of your planned change. Use charts, tables, text or any combination of these methods to illustrate how your planned change will look in your district/school when it is fully and ideally implemented.

Notes

Tool 2(cycle).2. Examples of Others' Implementation Plans and Logs (p. 1 of 3)

Examples of Others' Implementation Plans & Logs

After you have completed the Implementation Plan worksheet, you can begin to design the data collection logs necessary to assist teachers, administrators, and the District Professional Development Team in monitoring your use of professional development content. While your Implementation Plan describes your intended use of new learning, the monitoring process keeps everyone informed about possible gaps between intended and actual use. And, as formative data become available, an accurate picture of implementation enables a faculty to make adjustments in their patterns of use based on student progress.

Review the following samples of implementation logs to see how others have designed tools to monitor implementation of their training. Then refer back to your Implementation Plan Worksheet and begin to design tools that will gather the data you need to monitor your use of PD content.

Example 1 – "Second Chance Reading"

Example 1 demonstrates an Implementation Plan that is also used as a log to record use of newly learned strategies. Teachers develop plans with their collaborative teams. Each teacher then turns in to the Leadership Team a copy of the weekly lesson plan, "x-ing" out lessons not taught and inserting any additions.

The following schedule represents a typical week in Second Chance Reading for a period length of 55 minutes. If you have a block schedule, alternating block or other variation, your plan would need to vary accordingly.

It is recommended you begin with this general array of strategies. Some weeks your reading selection will be longer or shorter and adjustments will need to be made. While it is understood that each collaborative team will design their implementation plan, *it is important to remember that all the elements of Second Chance Reading are supported by substantial research and that the program as a whole, when implemented as illustrated below, has achieved good results as well.*

Monday*	Tuesday*	Wednesday*	Thursday*	Friday*
Independent reading Pair Share with generic questions Vocabulary for Read/Think Aloud	Read/Think Aloud Comprehension Lesson (Coop. Comp., Dictated Writing, Inductive Thinking, or Graphic Organizer)	Independent Reading Pair Share with generic questions Skill Lesson (context clues, fluency practice, etc.)	Independent Reading Individual vocabulary cards Vocabulary Pairs	Independent Reading Vocabulary Pairs Vocabulary tests [bi-weekly fluency/ comprehension tests]
**Teachers' individual work with students (book talks, listening to oral reading, etc., occurs during periods of time when students are engaged in independent or cooperative activities not requiring the teacher's active supervision (for example, independent reading sessions, individual and paired vocabulary work.)*				

Tool 2(cycle).2. Examples of Others' Implementation Plans and Logs (p. 2 of 3)

Example 1 – "Second Chance Reading" (continues)

The collaborative teams of Second Chance teachers fill out a 3-week plan, such as the following:

Second Chance Reading Planning Form

Teacher _____ **School** _____
Week of _____

Monday	Tuesday	Wednesday	Thursday	Friday
Independent Reading Pair Share w/ generic question #5 Vocabulary: "The Chaser" (F)	Read/Think Aloud: "The Chaser" Cooperative Comprehension: "The Chaser"	Independent Reading *Pair Share w/ generic question #3* Skill Lesson: Multi-syllabic words	Independent Reading Individual vocabulary words Vocabulary Pairs	Independent Reading Vocabulary Pairs Vocabulary Test Fluency Practice

Week of _____

Monday	Tuesday	Wednesday	Thursday	Friday
Independent Reading Pair Share w/ generic question #8 Vocabulary: "The Street" (NF)	Read/Think Aloud: "The Street" Dictated Writing: "The Street"	Independent Reading Pair Share w/ generic question #9 Skill Lesson: Context Clues (Inductive)	Independent Reading Individual vocabulary cards Vocabulary Pairs	Independent Reading Vocabulary Pairs Vocabulary Test Fluency Test (NF #1, level 3)

Week of _____

Monday	Tuesday	Wednesday	Thursday	Friday
Independent Reading Pair Share w/ generic question #13 Vocabulary: "Betty Ann" (NF)	Read/Think Aloud: "Betty Ann" Cooperative Comprehension: "Betty Ann"	I Independent Reading Pair Share w/ generic question #15 Skill Lesson: Idioms (Inductive)	Independent Reading Individual vocabulary cards Vocabulary Pairs	Independent Reading Vocabulary Pairs Vocabulary Test Fluency Practice

Tool 2(cycle).2. Examples of Others' Implementation Plans and Logs (p. 3 of 3)

Example 2 – Grades 4-5 Use a District's "Implementation Protocol"

This is a sample of a 4-week plan based on a district's "Implementation Protocol." The plan is explained from the point of view of a collaborative team of grade 4 and 5 teachers in a school with a reading goal. The teachers developed the plan after reviewing their curriculum for the upcoming weeks along with their students' needs (as indicated by on-going data collection).

The teachers had learned these strategies to apply in their reading curriculum: Inductive Thinking, Concept Attainment, Numbered Heads Together, Round Table, Cooperative Comprehension, and Mnemonics (link word method).

The name of the school and team members have been changed or deleted.

School **Madison Elementary** Date **January 1998**

Rather than using the form provided, we have described one week of the implementation pattern we intend to use for the next four weeks. One of our objectives is to increase the participation of our ELL (English Language Learners) students in comprehension activities, and that is the reason for the greater use of cooperative strategies. We also want to use mnemonics at least once a week to see if we can get students independent with the strategy.

Monday	Select vocabulary words from a read aloud article or story and teach students the meanings of the words using Numbered Heads Together. Read the selection to the students. Construct an Inductive Thinking data set in which the two or three categories in the data set contain examples of the two or three main ideas in the reading selection. After the students have identified the main ideas, have them write one sentence for each of the categories, summarizing the point in each category.
Tuesday	Assign to students the silent reading of a story or article (possibly from their anthology). After students have read the selection, group them in pairs and conduct a Round Table activity to provide practice in lower-order (factual recall) comprehension.
Wednesday	Select vocabulary from a story we will read orally to the students. Place the words, with brief definitions, on a study sheet and number the words. Embed meaning categories in this data set. After students have categorized the words for meaning, read the story to the students. Prepare a set of questions for Cooperative Comprehension. Group the students in pairs or threes and instruct them to complete the questions. When they have finished, debrief the entire class by asking two or three groups to share their answers on each of the questions.
Thursday	Teach a lesson on context clues using a Concept Attainment strategy. Prepare an inductive data set using vocabulary (in context) from a story the students will read silently. Students will group data in the data set by meaning rather than by type of context clue. After students have read the story, go back and review with them how they figured out the meanings of new words.
Friday	Choose a non-fiction reading selection with a definite sequence of events to read to the students. After we have read the piece, we will help students identify five or six key elements in the sequence of events. We will then work with the students to develop mnemonics for each of the events and practice recalling the sequence. We are selecting readings where the events have causal relationships; e.g., one event causes or influences the next, etc.
Note: These activities include only the reading portion of our two-hour language arts block.	

Read

Tool 2(cycle).3. Examples of How Others Have Monitored Their Implementation (p. 1 of 2)

Examples of How Others Have Monitored Their Implementation

This log is used by collaborative team members in a K-12 Iowa district that has learned inductive thinking strategies.

How Many Strategy Applications Did Your Group Have This Week?

Group Member:_____ Briefly describe your Classroom Applications (Concepts? Content?): Frequency Total_____	Group Member:_____ Briefly describe your Classroom Applications (Concepts? Content?): Frequency Total_____
Group Member:_____ Briefly describe your Classroom Applications (Concepts? Content?): Frequency Total_____	Group Member:_____ Briefly describe your Classroom Applications (Concepts? Content?): Frequency Total_____

Inductive:_____

Concept Attainment:_____

Tool 2(cycle).3. Examples of How Others Have Monitored Their Implementation (p. 2 of 2)

This group log is a summary form used by Second Chance Teachers approximately every six weeks. It provides trainers the feedback they need in order to design learning opportunities with the Leadership Team.

"Second Chance" Status Check
Frequency of Strategy Use, Difficulty, Problems

Please provide feedback on your use of strategies, their difficulty, and any problems you are encountering in implementing the "Second Chance" Reading Program. Please return these by Friday so that we can use your feedback in planning our day-long session on the 16th.

Strategy	Frequency of Monthly Use	Difficulty (1 = low; 5 = high)
Numbered Heads Together (vocabulary)	_____	_____
Vocabulary Cards/ Independent Reading	_____	_____
Round Table	_____	_____
Cooperative Comprehension	_____	_____
Inductive Thinking Skills	_____	_____
Main Ideas	_____	_____
Dictated Writing	_____	_____

Check which of the following is a continuing concern in your reading program

____ Getting students to read independently
____ Active student participation in "Read Alouds"
____ Student use of context clues when encountering new vocabulary
____ Higher-order comprehension
____ Other (list)

Tool 2(cycle).4. How Will You Monitor Your Implementation - Worksheet / Implementation Protocol (1 page)

How Will You Monitor Your Implementation? Implementation Protocol

Monitoring an implementation of a planned change accomplishes three things for a district or school staff.

- ❑ First, data about the frequency of your use and the skill of your application of staff development content will enable you to provide feedback to trainers on additional training needed.
- ❑ Second, in conjunction with your formative data collection, monitoring provides the necessary data for adjusting your implementation plan.
- ❑ Finally, implementation data, when analyzed in conjunction with summative data, allows you to make informed decisions about the efficacy of your program.

I. Describe how you will collect data on both the frequency and skill of use with your planned change.

II. Who will collect these data and at what intervals?

III. How will these data be shared and with whom?

IV. How often will you compare implementation data with formative data on student responses to your planned change? Will this occur in collaborative teams, school-wide, and/or district-wide?

Notes

Tool 2(cycle).5. A Guide for Collaborative Structures (p. 1 of 2)

A Guide for Collaborative Structures

The District Professional Development Leadership Team will want to provide guidance to collaborative teams based on implementation data being collected. The article below presents a list of sample actions that might occur in collaborative teams. How might you use this resource to assist teachers in articulating the possible activities that could help them? Read and discuss the article.

Using the Iowa Professional Development Model to Accelerate Student Achievement

Collaboration and Implementation

A Guide for Collaboration

Collaboration requires time and clarity of purpose. When the objective is implementing new content for the purpose of increasing student learning, this collaborative work indudes planning and development of lessons, examining student data, and solving problems encountered during attempts to use the new strategies. Below are a few sample actions that might be taken as educators work together to learn new content.

I. Planning and Development of Lessons

Examples of this work include:

- ❑ Sharing how students responded the last time the activity, strategy, or model was used
- ❑ Studying student work to decide what to do next (e.g., what outcomes would be most appropriate, what kind of passage to use, what kind of student application activity or activities would be most appropriate)
- ❑ Sharing desired student outcomes (putting the lesson in the context of your class and discussing what you want students to take away from the lesson)
- ❑ Planning the lesson and completing the planning guide or implementation log
- ❑ Sharing or showing the materials to be used and why they were selected.
- ❑ Rehearsing the lesson
- ❑ Making suggestions based on what a partner said she/he wants students to experience during the lesson

Note: For weekly collaboration meetings, planning and developing lessons will dominate two to three meetings each month.

Bev Showers, 2003

Article continues on next page.

2(cycle).5. A Guide for Collaborative Structures (p. 2 of 2)

Using the Iowa Professional Development Model to Accelerate Student Achievement

Collaboration and Implementation

A Guide for Collaboration (cont.)

II. Examining Student Data

Examples of this work include:

- ❑ Studying student work to decide\what to do next (e.g" what outcomes would be most appropriate, what kind of passage to use, what kind of student application activity or activities would be most appropriate)
- ❑ Reviewing, organizing, or analyzing general school data (such as student demographic data)
- ❑ Reviewing, organizing, or analyzing student performance data (such as ITBS or Basic Reading Inventory)
- ❑ Thinking about and discussing what the data mean for your school, students, curriculum, and instructional plans

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Note: Depending on the frequency of student data collection, collaboration teams periodically study student progress and needs in order to *adjust implementation plans.*

Bev Showers, 2003

III. Problem Solving Activities to Use While Learning New Strategies

Examples of this work include:

- ❑ Studying student work to decide what to do next (e.g., what outcomes would be most appropriate, what kind of passage to use, what kind of student application activity or activities would be most appropriate)
- ❑ Observing a partner using the activity, strategy or model with his/her students
- ❑ Studying a document that describes the attributes of the activity, strategy, or model and deciding what to work on next.
- ❑ Working with your students and modeling an activity, strategy, or model
- ❑ Watching a videotape of a partner using the strategy with his or her students

IV. Other

- ❑ Setting time to observe a partner using the activity, strategy or model with his/her students
- ❑ Deciding when to meet next and what to work on
- ❑ Recording implementation data
- ❑ Enjoying working together

Adapted from EF. Calhoun, Phoenix Alliance

How Three Schools Designed Collaborative Teams

As we have seen from the research on training, teacher opportunities to collaborate with peers when learning new curriculums, instructional strategies, and assessment systems are crucial to the actual implementation of planned change. Fortunately, there is no one right way to set up structures for collaboration, but it is critical that they be formally organized rather than left to chance. Most schools are not naturally structured to support teacher collaboration around planned change, and thus formal arrangements need to be put in place.

The following three examples illustrate some of the varieties of collaborative arrangements observed in schools. Review them and discuss structures that would work in your setting to engage all teachers in collaborative work during the implementation process.

Lake Elementary

Lake Elementary School had a faculty of 29, including two special education teachers and three "specials," (e.g., art, music, P.E. teachers). The "special" teachers were not at the school daily, but on four days of the week, at least two of them were present in the school. Because the school was a Title I school, there were ten instructional assistants working full or part time in the school as well. The principal, working with her staff, designed the following arrangement for collaborative teams.

Each grade level team met for an hour weekly to share and plan lessons, develop and share materials. This pattern was followed three of four weeks every month. On the fourth week of the month, an early release day provided two and one-half hours for the faculty, one hour of which was spent as a "study team of the whole" to examine and report student data, with the remaining time spent by grade level teams to work on their own data (student data and implementation data.) Implementation data were given to the principal at the conclusion of these meetings each month.

The principal of Lake Elementary used the large group meetings to encourage teams, celebrate progress and successes, and sometimes, to share demonstrations of particularly successful lessons. She often taped lessons as she moved about the school during the month, and teachers gained recognition and status in the sharing of these bits of taped lessons.

Southern Middle School

Southern Middle School had adopted a middle school structure two years before embarking on a school-wide reading across the curriculum initiative. Teachers already had 90 minutes every other day for integrated team meetings. The principal suggested that one of these periods be used for collaborative planning for the school-wide change initiative.

In the beginning, teachers had mixed feelings about this arrangement. While they already knew their team members well, and liked the idea of not disrupting the existing (new) schedule, they felt the need to meet with same-group subject areas for the planning of lessons.

For four months teachers met with their existing integrated teams. Their assessment at the end of that period was that their lessons were of much higher quality because of the need to basically "teach" their lessons to different subject colleagues. On the other hand, they felt working at least some of the time with same-subject peers would lessen their workloads. In the second semester of the school year, teachers met twice a month with their integrated team members and during a two-week period, had one 90 minute work session with same subject peers. Time for this third

meeting was generated by the principal and a roving substitute who spent two days a month in the building, releasing one teacher every period. The combination of a substitute, the principal and a naturally occurring prep period created teams of three for their same subject work.

Half the time in monthly staff meetings was devoted to either the sharing of school-wide student data or live demonstrations by teachers the principal had asked to teach the group.

City High School

City High School had a traditional schedule. Every teacher had a prep period sometime during the day, and department and staff meetings were held monthly. The principal asked a representative group of teachers (department chairs) to devise a plan that would enable all teachers to work with colleagues on a weekly basis to implement the cooperative strategies the entire staff was learning. After conferring with their respective departments, the chairs devised a plan that was flexible in the extreme (and which reflected their principal's willingness to work out flexible arrangements). Teams of three to five teachers met in the following patterns: some met during shared planning periods once a week; some met before or after school one day a week, and chose another day to leave early (so as not to exceed the limits of contracted time); one group met every other Saturday morning for two to three hours (this was volunteer activity and met the needs of group members to have spouses assume baby-sitting roles).

Variety

Over the past 25 years, [researchers] have seen a nearly endless variety of arrangements in schools for teacher collaborative work. The successful work of these groups seems much more dependent on the shared commitment to practice newly learned skills, share the work of planning and development, learn from one another, and cooperate toward shared goals for student growth rather than on any single structure for collaborative work.

One distinguishing characteristic of "successful" collaborative teams is their *productivity*. They use this shared time to accomplish work, the sessions are planned and businesslike rather than social, and their cohesion stems from shared professional growth and accomplishment.

Examples: Collaborative Team Minutes and Logs

Sample of Collaborative Team Minutes

Collaborative Team meetings provide opportunities for teachers to begin to triangulate their data and make adjustments to maximize implementation impact. By looking at frequency and fidelity of implementation data and student work, teachers can plan ways to strengthen their implementation as a group and individually. It also provides a data source for the Professional Development Leadership Team to provide additional support and training in areas of need. Review this as one example of team minutes to begin thinking about your own local format.

Date _____ **School** _____

Team Members:

_____ _____

_____ _____

_____ _____

Agenda for this meeting: (Describe your activity for this meeting, e.g., planning, lesson development, etc.)

Discussion: (Describe issues/problems discussed, solutions generated, decisions made, etc.)

Were plans made to observe in each other's classrooms? If yes, please describe.

Time, date and agenda for next meeting: _____

Minutes submitted by _____

Tool 2(cycle).7. How Three Schools Designed Collaborative Teams (p. 2 of 2)

Sample of Collaborative Team Log

On the following two pages is a log developed by Dr. Nancy Eckerson for use with an Iowa district learning several models of teaching. The implementation plan for this district varied rather widely by subject and grade level. Thus, while all teachers K-12 learned an inductive thinking model of teaching, primary teachers planned to use the strategy three to five times weekly for skills lessons and once a week for comprehension. Secondary teachers, on the other hand, planned to use the strategy to teach major concepts in their disciplines (once weekly or bi-weekly) as well as to check for understanding at the ends of units. Because implementation plans varied widely by collaborative teams, the logs provide an opportunity for teachers and administrators to compare their intended practice with their actual practice.

Date:_____ **Leader:** _____

Time:_____ **Recorder:** _____

Group Members:

	Pres	**Abs**		**Pres**	**Abs**

Next Scheduled Meeting:

Date & Time: _____ Location: _____

Leader: _____ Recorder:_____

Discussion and activities:

For next meeting, we need to:

Concerns/recommendations:

Next meeting's agenda:

Use the back of the Log to indicate all of your *Classroom Applications* since the last Collaborative Team Meeting.

Augusta: How One District Studied Its Implementation

Read the Augusta Implementation Study below and discuss implications it has for the following components in your design: collaborative team makeup, administrator role, and on-going data collection.

Augusta Formal Implementation Study

(A synopsis of "School Improvement through Staff Development: Levels of Implementation and Impact on Student Achievement". Showers, 1990)

Case studies of three schools embedded in a larger school improvement effort investigated the implementation of alternative teaching strategies aimed at increasing student achievement and decreasing retentions and office referrals for inappropriate behavior.

Sample

A stratified random sample of 18 teachers (drawn from 110 teachers), six from each of three schools, were the subjects of this study. One teacher was dropped from the sample due to an extended illness. All teachers in the sample had extended training over two years in cooperative learning, inductive thinking and mnemonic strategies.

Data Collection

The seventeen teachers were observed six times during the second year of the project. Teachers maintained logs detailing use of strategies, submitted sample lessons, and 14 of the teachers were videotaped in their classrooms. Informal interviews were conducted with all teachers during year one and formal interviews were conducted in year two of the project. "States of Growth," a measure developed to study responses to learning opportunities, was determined through the formal interview process (see McKibbin & Joyce, Psychological States and Staff Development, 1980).

The variables under study were: frequency of use of each of the strategies and levels of transfer, a quality measure (see Joyce & Showers, *Student Achievement through Staff Development*, 3rd Ed., 2002). The levels of transfer, from low to high, were: imitative (1), mechanical (2), routine (3), integrated (4), executive control (5).

Results

Use of the cooperative strategies was so frequent (many teachers used it daily), we decided to drop it from this analysis and treat it separately. These figures represent use of inductive thinking, concept attainment, and mnemonics.

Frequency of Use

In year one of the project, sample teachers practiced their new strategies an average of 14.5 times per month, and in year two, 22.7 times per month. School average use varied considerably, however. In year one, School A had average use of 17, School B, 11, and School C, 15. School averages for year two were 15, 24, and 29, respectively.

Quality of Use

The mean quality of use for both years was 3.3 (routine use). However, in year one, 11 of the teachers reached routine or integrated levels of use, while in year two, five of the teachers reached levels 4 or 5 on the Transfer of Training Index.

Frequency of practice with the strategies was correlated with level of transfer at r=.62 in year one and r=.75 in year two (Spearman Rank Correlation Coefficient). It would appear that frequent practice of new instructional strategies is essential to skilled and appropriate use of those strategies.

Factors Affecting Variation in Use and Transfer

We examined frequency of use and transfer of training with individual teacher characteristics (States of Growth) and school level factors (principal leadership and functioning of collaborative teams). This study included the six administrators and 110 teachers in all three schools.

States of Growth correlated .87 with transfer of training in year one, and .88 in year two. Years of teaching experience was not a predictor of transfer of training.

Collaborative teams were observed frequently by project staff and school administrators. The functioning of these teams ranged from low (pro forma, or merely going through the motions) to enthusiastic to fully collegial (setting of common goals, planning and development of lessons and units, frequent mutual observation for purposes of personal learning). Collaborative team functioning correlated with individual teacher transfer of training .61. Thus, poorly functioning teams did little to improve transfer of training for the weaker team members, while fully functioning teams lifted the transfer scores for all members.

The support of principals and assistant principals significantly influenced implementation rates at their respective schools. Although there was considerable pressure and support from project staff for all staffs, administrative behaviors affected implementation. A change of principals at School A in year two illustrates the impact of administrative leadership on implementation. Administrative behaviors associated with increased implementation were: attendance at training sessions, practice of strategies in classrooms, frequent informal observations or classroom visits, attendance at collaborative team meetings, sharing of data and celebrating progress.

Summary

The implementation of planned change is crucial to the success of staff development and, thus, school improvement efforts if increased student growth is the intended outcome of such changes. Monitoring of an implementation — including setting a target for implementation, collecting data on an ongoing basis to determine if the goal is being met, and using the data collected to identify obstacles to use of the planned change —empowers staffs and builds confidence in their collective ability to accomplish what they set out to do.

The study of implementation should be an inclusive process — everyone can use it as the basis for an ongoing inquiry into their practices and effects. Rather than having a few persons responsible for the study of implementation, such study should be a normal part of the operation of the school and district.

Tool 2(cycle).9. Finding Time for Training and Collaboration (p. 1 of 5)

Finding Time for Training and Collaboration

Ideas for Finding Time

Participants in the Iowa Professional Development Model Orientation Session on September 16, 2003 generated this list of ideas for finding time for collaboration and training.

Ideas for Types of Structures Needed
- ❑ Study groups;
- ❑ Common planning times for teams during school day;
- ❑ Expand idea of mentoring program so everyone has an "innovation buddy;"
- ❑ Brown Bag lunch learning.

Ideas for Adding Calendar Days
- ❑ Add calendar days to school year;
- ❑ Change school calendar;
- ❑ Make teaching year-round job and pay teachers;
- ❑ Fund more days for professional development.

Ideas for Inservices/Early Release/Late Start
- ❑ Early outs scheduled at least monthly--weekly better;
- ❑ Stagger 1/2 day inservices so elementary on one day and secondary on a different day;
- ❑ At high school level have a modified schedule for early release days, i.e. one week periods 1, 3, 5, 7 and next week periods 2, 4, 6, 8;
- ❑ Adjust length of day to create blocks of time for early outs/late starts;
- ❑ 4-day student/5-day teacher week;
- ❑ Very focused agenda and build in additional 9 days of professional development by:
  +1/2 hour 1 morning per week
  +1 hour after school per week
  +1 common planning time per week
  Based on 37 weeks + 9 additional DAYS of planning time;
- ❑ Early starts to accumulate time to swap for professional development time;
- ❑ 15 minutes off contract time (before/after);
- ❑ Non-contract time (before/after kids);
- ❑ Create a "fun night"—socialize and learn;

Ideas for Modifying Teacher Schedules during Student Day
- ❑ Block scheduling provides more possibility of flexibility;
  - o Get rid of non-essential "clutter" for students;
  - o Individual time for appropriate content learning for students;
  - o Digital learning for students;
  - o Leaves more time for collaborative work for teachers;
- ❑ Merge classes for assemblies/films/common activities with fewer adults supervising;
- ❑ Schedule common planning time for learning teams or other appropriate groups;
- ❑ Collaborative learning scheduled as part of the school day;
- ❑ Analyze and identify non-efficient uses of time;
- ❑ All teachers at each grade level have 1 common planning time a week;
- ❑ Schedule back-to-back sessions where teachers are released on a scheduled basis;
- ❑ Interdisciplinary teams set time aside for professional development, reflection, coaching;
- ❑ Team time in each building with tight agendas;

Tool 2(cycle).9. Finding Time for Training and Collaboration (p. 2 of 5)

- ❑ Innovative scheduling;
  - Increase teacher planning time during daily schedule (add minutes);
  - Rotate planning for culminating activities in social studies, science, etc. and use associates (or volunteers) for this time;
- ❑ Creative use of staff assignments.

Ideas for Refocusing Use of Existing Meetings

- ❑ Use time that is set aside for staff meetings for training, video demonstrations, data analysis, collaboration, etc.--do other work by e-mail or staff bulletins.

Ideas for Time Beyond School Day/Week/Year

- ❑ Collaboratively plan summer course work and other collaborative learning activities;
- ❑ Saturday sessions, e.g. Koffee Klatch;
- ❑ Late afternoon potluck or pizza—nice change; something to look forward to after working together; incentive;
- ❑ Plan at another place; fresh environment (coffee house, restaurants, etc.);
- ❑ Adding time to the school day--extending school year; use the extra days for staff development.

Ideas for Efficient Use of Time

- ❑ Pre-plan professional development sessions; share plans and agendas in advance; have participants read ahead; timeline for completion; etc.
- ❑ Discontinue practices no longer needed; time audit to determine amount being spent;
- ❑ Use teacher shared planning time for new learning;
- ❑ Lunch and Learn sessions;
- ❑ Book groups/Study groups before and after school--could spend first 20 minutes reading and then talking;
- ❑ Teachers involved in scheduling; they will find time if they look—teacher power!
- ❑ Potluck breakfast—teachers come before contract or during lunch;
- ❑ Do time audit and use to allocate time for peer collaboration;
- ❑ Trade building meeting time that could be handled in memos, etc. and redirect to Professional Development;
- ❑ Using 1-2 prep times a week;
- ❑ Better use of e-mail for announcements;
- ❑ Early dismissals that are planned a year ahead;
- ❑ Bring professional articles to department meetings to read and discuss;
- ❑ Use faculty meetings for collaboration and team training instead of information.

Ideas for Use of Technology

- ❑ Web-based tools:
  - InTime videos with structured learning activities and times to “share” later;
  - Chat sessions for collaboration and discussion;
  - Interactive journal (could be e-mail) with learning partner;
  - Message boards;
  - Web-based training and/or video classes that model the strategy;
  - Videoconferencing;
  - Video stream, threaded discussions, i.e. bulletin board;
- ❑ Information management systems;
  - Use videos/articles to read and reflect, then process with whole faculty (e.g. notes on bulletin board);
- ❑ Better use of ICN;
- ❑ Videotaping in building for demonstrations to be used in study groups.

Tool 2(cycle).9. Finding Time for Training and Collaboration (p. 3 of 5)

Ideas for Support Resources to Generate Teacher Time

- ❑ Substitute teachers:
  - o Rotate several substitute teachers through the building;
  - o For staff to be out of classroom for planning, collaboration;
  - o Substitute teacher has lesson for large group of students; associates provide support in implementation of task;
  - o Take classes for teachers writing grants to free up time to do;
- ❑ Aides:
  - o Take students 2 days a week to free up planning time;
  - o Hire for duties (e.g. recess) to give teachers more time;
- ❑ Principals cover classes during professional development collaboration;
- ❑ Implement "reading buddies" where older/younger students read to each other; frees up time for teachers to observe others;
- ❑ Other teachers:
  - o If 1/2 time kindergarten teachers don't have students, go and cover for others;
  - o High school teachers cover for each other;
  - o Non-reading area staff cover for others to learn strategies;
- ❑ Community support:
  - o Use outside organizations (i.e. YMCA) to take students for 1 1/2 hours;
  - o Parent volunteers:
  - o Read to students freeing up teacher to observe others;
  - o Encourage certified teacher community members to volunteer;
- ❑ Link with colleges/universities to free up time.

Ideas for Collaborating with Other Districts

- ❑ Coordinating calendars for inservice collaboration for multiple districts;
- ❑ Use multi-district leadership teams for planning;
- ❑ Regional coordination of schedules so districts share professional development;
- ❑ Team with neighboring districts to develop agreements for subs.

Ideas for Leadership Role(s)

- ❑ Administrative intervention to create release time;
  - o Teacher participation in leadership team and culture can be motivational; teachers will often see it as professional renewal and spend time on their own;
- ❑ Plan on principal's responsibilities;
- ❑ Use staff for ideas on how to find time;
- ❑ Professional Development Leadership Teams specific to buildings;
- ❑ Modify curriculum to reflect new teaching strategies.

Ideas for On-going Technical Assistance

- ❑ Opportunities need to be developed and planned at the DE level to model for AEAs and LEAs;
- ❑ Teachers take classes for credit through Drake and AEA based on goals to become local leaders;
- ❑ Presenter of theory provides modeling and coaching in individual classrooms;
- ❑ Build capacity of leadership team to provide support and be facilitators of professional development;
- ❑ Must model how to be reflective and how to coach peers;
- ❑ Offer on-site university classes for credit;
- ❑ Individual peer coaching by DE/AEA/LEA staff.

Tool 2(cycle).9. Finding Time for Training and Collaboration (p. 4 of 5)

Ideas for Cultural Issues

- ❑ Modeling new norms by the leader for using time for building goals to create a new school climate/culture;
- ❑ Develop a professional culture that encourages activities like Lunch and Learn, learning times outside the contract day, etc.;
- ❑ Culture change to impact "teachers walking out at 4:00";
- ❑ Teacher Training Issue
  - Neophyte teachers should be taught they are lifelong learners and their built-in breaks and free time during the day should be used in honing their teaching skills and continuing to learn in order to boost student achievement;
- ❑ Time issue sometimes a "blocking" behavior;
- ❑ Do a good job with PR so parents understand release time is impacting student achievement;
- ❑ Train teacher teams to become high performance teams who are able to capitalize on the limited time available.

Ideas for Board/Community Education

- ❑ Change in policy:
  - Involve school boards so they have a good understanding of the importance of adopting the intervention;
- ❑ Ask newspaper person to come to early release professional development days to highlight positive results in newspaper article to gain public support.

Ideas for Incentives

- ❑ Allowing staff development credit for work done during contract time;
- ❑ Comp time/flex time offered;
- ❑ Increase teacher pay when doing certain work;
- ❑ Teachers take classes for credit based on goals;
- ❑ Study groups for credit—books, web, inservices;
- ❑ Saturday classes and summer workshops—teachers are paid to attend or offered credit;
- ❑ Coaches with flex time;
- ❑ Business partnerships that offer stipends;
- ❑ Offer on-site university classes for credit;
- ❑ Make time useful to teachers so they see value in time they are committing.

Ideas for Financial Support

- ❑ Local business support;
- ❑ Title I funds for positions (staff);
- ❑ State fully fund Teacher Quality bill;
- ❑ Use extra resources, i.e. grants, foundations, legislated funding, indirect costs, etc.;
- ❑ Seriously restructure budgets.

Finding Time: Activity for Your Staff

Finding time for research-based professional development strategies is often difficult in the busy schedules of teachers and administrators. Sometimes it takes thinking about utilizing time in a different way. In other cases, it may be a matter of making professional development a high priority when making decisions about time. Use this activity with the District Professional Development Team and/or district staff to generate ideas for how you can make time for the Professional Development Design you have developed.

Time is the scarcest commodity in most schools. Finding time for teachers to collaborate in order to implement the changes they have planned for professional development and school improvement can be challenging when schools are not already structured for this activity.

Options For Providing Teachers Time For Collaboration

1. Administrators free teachers by taking their classes
2. Large-group instruction
3. Independent study and research
4. Instructional assistants
5. Student Teachers/interns
6. Early release one day a week

Activity Directions

Step 1: Review the list above and generate more specific options based on your local district.

Step 2: Prioritize the list, placing a "1" by your top priority for gaining teacher collaboration time, and so on down the list.

Discuss other options with your team using brainstorming rules (e.g., record all options without judgment, stopping the process only to clarify meaning of options.

Allow time for each person to prioritize individually their 1st – 5th choices on the list before discussing and making a decision as a group what your group priorities are.

It is rare that one option will provide all the time you need for small groups of teachers to meet on a weekly basis to work on their implementation. Think about the amount of time required in the professional development design you have created, your current structures for teacher collaborative work, and then determine how many of your top options for creating time will be needed.

Notes

Tool 2(cycle).10. Finding Time for Training and Collaboration (p. 1 of 3)

Examples of School PD Calendars

District 2004-2005 Calendar with Rationale

Premise: A district calendar designed around clear student achievement improvement goals, faculty collaboration, and explicit professional learning expectations reflects what a community values.

Element (In Priority Order)	Reason
Early Start Date vs. Post-Labor Day Start	▪ To maximize the number of instructional days prior to Fall ITBS/ITED testing
Full Day Professional Development vs. Early Dismissal/Late Starts	▪ To reduce student daily schedule disruptions ▪ To increase cross-building communication: curriculum, instruction, and assessment ▪ To increase faculty understanding and use of effective instructional practices
Number of Professional Development Days	▪ To move toward Iowa Teacher Quality legislation and Career Development Model requirements and National Professional Development standards
Distribution of PD Days	▪ To follow-up theory/ information/ demonstration days with faculty meetings, scheduled practice, feedback and coaching sessions ▪ To increase "effect" of training upon professional practice and ultimately student achievement
Clerical Days	▪ To complete report card information ▪ To prepare informative parent conferences
Conference Days/Times	▪ To offer parents scheduling options; reduce conflicts between building schedules
Thanksgiving	▪ To accommodate tradition
Winter Break	▪ To accommodate tradition
Spring Break	▪ To accommodate tradition

Effect Sizes and Training Outcomes

Training	Outcomes		
	Knowledge	Skills	Transfer
Theory/Information	.63	.50	.00
Theory/Demonstration	.00	.86	.00
Theory/ Practice	1.15	----*	.00
Theory/Demo/Practice	----*	.72	.00
Theory/Demo/ Practice/Feedback	1.31	1.18	.39
Theory/Demo/ Practice/Feedback/ Coaching	2.71	1.25	1.68

*Insufficient data to compute effect size

Tool 2(cycle).10. Finding Time for Training and Collaboration (p. 2 of 3)

School Professional Development Calendar – Fall 2004

Date/Time	Group	Practice*	Learning Tasks
Aug. 3 9:00 - 11:00	Leadership Team	T-I	Review School Improvement Plan Finalize August 19 staff Learning day
Aug.12-13 7:30 - 11:30	Strategists/ New Teachers	T-I-D-P-F	Practice guided reading norms Design first two weeks reading lessons
Aug. 19 7:30 - 3:30	All Faculty/ Para's	T-I-D-GP	Reading-writing connection All produce lesson; apply by Sept. 8
Aug. 20 3:45 – 5:00	Leadership Team	F-C	Debrief workshop Develop grade level meeting agendas
Sept. 2 – 3 (Various)	Grade Level Chairs/Teachers	PPS P-F-C	Review classroom roster data, BRI data Schedule peer observations
Sept. 7- 12 (Various)	All Faculty/ Principal	P-F-C	Conduct structured one hour observation followed by one hour debriefing with coach
Sept. 20 7:30 – 3:30	Literacy Teams	PPS	Review student progress to date on standards/ benchmarks
Sept. 20 3:45 – 5:00	All Faculty/ Para's	I-D-P PPS	Score constructed response papers Write new prompt
Sept. 22 3:45 – 5:00	Leadership Team	PPS P	Debrief workshop; plan next week's Faculty meeting's literacy segment (30min.)
Sept. 29 3:45 – 4:30	Faculty Meeting	T-I-D-GP	Faculty reads Grade 3 passage; scores student writing sample;
Oct. 4-8 (Various)	Grade Level Chairs/Teachers	PPS	Review student data on first quarter constructed response task
Oct. 5 3:45 – 5:00	New Teachers/ Mentors	PPS T-I-D	Review student data/teacher artifacts Orientation to parent progress reports
Oct 6 7:30 – 8:00	Leadership Team	PPS	Review October 11 staff learning day plan; team assignments
Oct 11 7:30 – 3:30	All Faculty/ Para's	I-D-P PPS	Presentation: Best Practice Grammar Inst. Review grammar benchmarks/student data

*Theory (T), Information (I), Demonstration (D), Practice (P), Feedback (F), Coaching (C) Planning/Problem Solving (PPS)

Tool 2(cycle).10. Finding Time for Training and Collaboration (p. 3 of 3)

Calendar for Scheduling PD Meetings

October						
Sun	**Mon**	**Tues**	**Wed**	**Thurs**	**Fri**	**Sat**
					1	2
3	4	5	6	7	8	9
10	11 In-Service	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

November						
Sun	**Mon**	**Tues**	**Wed**	**Thurs**	**Fri**	**Sat**
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25 Vacation	26 Vacation	27
28	29	30				

December						
Sun	**Mon**	**Tues**	**Wed**	**Thurs**	**Fri**	**Sat**
			1	2	3	4
5	6 In-Service	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23 Vacation	24 Vacation	25

Common Training sessions	Theory presentations—reading literature—discussions
Weekly meetings	PD Leadership Team—team planning—analyze work
Building meetings	Demos, working with data, peer coaching rehearsals, reviews of theory

Notes

Tool 2(cycle).11. Examples of One Project's Plan for Collecting Formative Data (p. 1 of 2)

Example of One Project's Plan for Collecting Formative Data

Example of Formative Data Collection for Second Chance Reading

Teachers and students cooperate to collect formative data in Second Chance Reading classrooms. On the "Book Log", students record each book they read and the teacher signs off on the book after completing a book talk with the student. On the "Test Record" form, students record the results of their weekly vocabulary tests and their bi-weekly fluency and comprehension test scores.

Name_____ Teacher_____

BOOK LOG

Title	Author	# of Pages	Start Date	Finish Date	Rating 1-10	Book Talk
1)						
2)						
3)						
4)						
5)						
6)						
7)						
8)						
9)						
10)						
11)						
12)						
13)						
14)						
15)						
16)						

Tool 2(cycle).11. Examples of One Project's Plan for Collecting Formative Data (p. 2 of 2)

Test Record Sheet

Name_____Grade_____Period_____

Vocabulary Growth Record

Date	# Words Mastered	Cum. Total	Initial

Fluency Test Record

Date	Test #	Comp. Score	WPM

Tool 2(cycle).12. Formative Data Plan Worksheet (one page)

Formative Data Plan: Worksheet

Formative data are the measures of student performance administered periodically to determine if the content you are implementing is having the desired effect. When student growth is uneven, these data are used to modify the implementation plan as well.

- Study formative data collection instruments you have selected.
- Name and number each instrument.
- Using the grid below, identify the type of data each instrument collects.
- Answer the questions at the bottom of page.

Name of school: _____AEA:_____

	Instrument 1 NAME:	**Instrument 2** NAME:	**Instrument 3** NAME:
Teacher Measures			
Frequency of use of strategy or other planned changes that are content of SD [Frequency]			
Measures accuracy of/ skill with newly implemented strategies, etc. [Fidelity]			
Student Measures			
Measures how well students are learning and applying the skill/behavior that is the focus of the PD effort			

Estimating yield from formative data collection:

Will you know what instructional and curricular changes your students are experiencing? Is each student getting enough instruction in this strategy to yield positive results?

Will you know whether teachers are implementing the SD content with sufficient frequency and skill that students get the intended benefit?

Will you be able to track student progress/growth on the targeted knowledge/skills?

Will you have enough information to adjust the training and workplace supports to help those teachers who are not transferring the skill into their classrooms?

What else might you need to include in your formative data collection?

Notes

Combining Your Own Implementation and Formative Data

Questions to Ask Of Implementation/Student Growth Data

Combining teacher implementation data (what instructional program have students actually experienced?) with student learning data (results from formative measures as well as ITBS and ITED) allows you to answer your most pressing question: Is this working?

Questions frequently asked of these data include:

- ❑ How often did our students experience the content of our professional development program? Was it more or less often than recommended by research on our content?
- ❑ Do we have a good fidelity measure? E.g., did we implement our new content accurately or did we return to traditional practices, calling them by a new name?
- ❑ Did our students grow as anticipated during the period of our implementation of our new content? Did all students grow equally, or did our new content work better for some groups of students?
- ❑ Did all teachers implement equally, or did some teachers implement the new content more frequently and accurately than others? If yes, did student learning vary systematically by teacher implementation?

You may have other questions you wish to answer as you analyze these data.

How to Create Implementation Scores

Implementation data attempt to say something about fidelity to intentions when innovations are being learned and used in classrooms. Generally, these data attempt to measure both frequency and quality of implementation. When combined with student learning data, they help the Professional Development Leadership Team and collaborative teacher teams triangulate data to determine additional training and support needed. These two pages provide an example of how one school developed a system to analyze data.

The Coastal Unified School District combined three sources of information to derive implementation scores:

Observations
Document Analysis
Minutes from Collaborative Team Meetings

I. **Observations:** The CUSD reading coordinators systematically visited Second Chance Reading Classrooms. During their observations they recorded on a checklist the room setup, teacher activities, and student activities. They then rated, on a scale of 1-5, the accuracy of the strategies observed.

   (Observations could also be conducted by principals and assistant principals, department chairs, curriculum directors, or anyone knowledgeable about the content being implemented.)

II. **Document Analysis:** Three weeks of lesson plans (for each nine-week period) were analyzed for each teacher to determine with what frequency they used various program elements. Sample lessons were attached to the plans in an attempt to determine quality of lessons. Teachers were then ranked from top to bottom on fidelity to the model (Second Chance Reading).

   (Documents generated by monitoring an implementation will vary widely, depending on the content of professional development and the nature of the implementation plan.)

III. **Minutes from Collaborative Team Meetings:** Collaborative teams kept simple minutes of their meetings, reporting the content of their sessions (lesson planning and development, sharing of problems and solutions, study of student data, etc.) Some teams met weekly (or even more frequently) and others met irregularly.

These three sources of data were combined into a single ***score*** for each teacher: a score of one for low implementation to a score of three for high implementation.

Tool 2(cycle).13. Combining Your Own Implementation and Formative Data (p. 3 of 3)

Combining Implementation/Student Growth Data

In order to evaluate the effectiveness of a program and make decisions about whether to continue the program or try an alternative, it is critical to examine program effects by teacher implementation. In the example above, each teacher kept a spreadsheet for their students, recording attendance, test scores, books read, fluency and comprehension scores, etc. as well as demographic data for each student. When these spreadsheets were combined into a school or district data base, the final column was the implementation score.

Sample questions to ask of your combined data are:

Q1: What is the correlation of teacher implementation with student growth in total reading? In vocabulary? In comprehension?

Q2: What was the mean student growth of teachers at various levels of implementation?

Q3: What were the mean numbers of books read and vocabulary learned by levels of teacher implementation?

Are there other questions you want to ask of these data?

In every school, for various reasons, there are variations in the implementation of the curricular and instructional changes you plan. Discuss with your group ways to address these changes if it appears that the program/strategies you are learning in your professional development program truly benefit students when they are fully implemented.

Note

Tool 2(cycle).14. Operating Principles for the Ongoing Cycle (1 page)

Operating Principles for Ongoing Cycle

Refer back to your Implementation Protocol Worksheet, your Monitoring Implementation Worksheet, and the Ongoing Cycle section of the manual. List key actions taken to support ongoing data collection. Identify actions needed to ensure that this component of the Iowa Professional Development Model is fully supported. Consider possible pitfalls and strategies to avoid them.

Focus On Curriculum, Instruction And Assessment:

Action Taken

Action Needed

Participative Decision Making:

Action Taken

Action Needed

Simultaneity:

Action Taken

Action Needed

Leadership:

Action Taken

Action Needed

Note

Tool 2(eval).1. Goal Oriented Summative Program - Evaluation Questions (one page)

Goal-Oriented Summative Program Evaluation

Several methods of goal-oriented summative program evaluation appear in the literature (i.e. Guskey (2000), Killion (2002), NCREL (2003), Thomas (1994), and United Way (1996)). The following list is a compilation of parts that appear in multiple models. Data Driven Leadership (DDL) is another place to look for information regarding many the steps involved in evaluation.

Define the purpose of the evaluation.
- What key questions need to be answered?
- Who will be the audience(s) for the results?
- How will the results be used?

Design the assessment including criteria and indicators.
- What do you plan to measure?
- Who will be responsible?
- How will you know if change has occurred?
- Do you have sufficient money, time, and people to complete as designed?

Identify data sources and strategies for gathering evidence.
- What data will you collect?
- When will it be collected?
- Did you include implementation evidence?
- What additional information will help you understand your results?

Organize, analyze and interpret the data.
- Do you see patterns in the data?
- What does our data tell us about student performance?

Consider the relationship between your goal and your outcomes.
- What change was observed?

Use and report your evaluation outcomes.
- What form will your report take?
- What will be the uses of the evaluation?

Evaluate your evaluation.

Note

Tool **2(eval).2.** Program Evaluation Standards (p. 1 of 3)

Program Evaluation Standards

The Program Evaluation Standards, established by sixteen professional associations, identify evaluation principles that, when addressed, should result in improved program evaluations containing the four attributes of utility, feasibility, propriety, and accuracy described below. Guidelines and illustrative cases to assist evaluation participants in meeting each of these standards are provided in *The Program Evaluation Standards* published by Sage (1994). The cases discussed are based in a variety of educational settings that include schools, universities, medicine, business, government, and law.

Discuss these standards and their importance to program evaluation in schools. School personnel who have completed the Evaluator Training requirements will find the four attributes familiar as they are the same ones listed in The Personnel Evaluation Standards.

Utility Standards

The utility standards are intended to ensure that an evaluation will serve the information needs of intended users.

Stakeholder Identification. Persons involved in or affected by the evaluation should be identified, so that their needs can be addressed.

Evaluator Credibility. The persons conducting the evaluation should be both trustworthy and competent to perform the evaluation, so that the evaluation findings achieve maximum credibility and acceptance.

Information Scope and Selection. Information collected should be broadly selected to address pertinent questions about the program and be responsive to the needs and interests of clients and other specified stakeholders.

Values Identification. The perspectives, procedures, and rationale used to interpret the findings should be carefully described, so that the bases for value judgments are clear.

Report Clarity. Evaluation reports should clearly describe the program being evaluated, including its context, and the purposes, procedures, and findings of the evaluation, so that essential information is provided and easily understood.

Report Timelines and Dissemination. Significant interim findings and evaluation reports should be disseminated to intended users, so that they can be used in a timely fashion.

Evaluation Impact. Evaluations should be planned, conducted, and reported in ways that encourage follow-through by stakeholders, so that the likelihood that the evaluation will be used is increased.

Feasibility Standards

The feasibility standards are intended to ensure that an evaluation will be realistic, prudent, diplomatic, and frugal.

Practical Procedures. The evaluation procedures should be practical, to keep disruption to a minimum while needed information is obtained.

Political Viability. The evaluation should be planned and conducted with anticipation of the different positions of various interest groups, so that their cooperation may be obtained, and so that possible attempts by any of these groups to curtail evaluation operations or to bias or misapply the results can be averted or counteracted.

Cost Effectiveness. The evaluation should be efficient and produce information of sufficient value, so that the resources expended can be justified.

Propriety Standards

The propriety standards are intended to ensure that an evaluation will be conducted legally, ethically, and with due regard for the welfare of those involved in the evaluation, as well as those affected by its results.

Service Orientation. Evaluations should be designed to assist organizations address and effectively serve the needs of the full range of targeted participants.

Formal Agreements. Obligations of the formal parties to an evaluation (what is to be done, how, by whom, when) should be agreed to in writing, so that these parties are obligated to adhere to all conditions of the agreement or formally to renegotiate it.

Rights of Human Subjects. Evaluations should be designed and conducted to respect and protect the rights and welfare of human subjects.

Human Interactions. Evaluators should respect human dignity and worth in their interactions with other persons associated with an evaluation, so that participants are not threatened or harmed.

Complete and Fair Assessment. The evaluation should be complete and fair in its examination and recording of strengths and weaknesses of the program being evaluated, so that strengths can be built upon and problem areas addressed.

Disclosure of Findings. The formal parties to an evaluation should ensure that the full set of evaluation findings along with pertinent limitations are made accessible to the persons affected by the evaluation, and any others with expressed legal rights to receive the results.

Conflict of Interest. Conflict of interest should be dealt with openly and honestly, so that it does not compromise the evaluation processes and results.

Fiscal Responsibility. The evaluator's allocation and expenditure of resources should reflect sound accountability procedures and otherwise be prudent and ethically responsible, so that expenditures are accounted for and appropriate.

Tool 2(eval).2. Program Evaluation Standards (p. 3 of 3)

Accuracy Standards

The accuracy standards are intended to ensure that an evaluation will reveal and convey technically adequate information about the features that determine worth of merit of the program being evaluated.

Program Documentation. The program being evaluated should be described and documented clearly and accurately, so that the program is clearly identified.

Context Analysis. The context in which the program exists should be examined in enough detail, so that its likely influences on the program can be identified.

Described Purposes and Procedures. The purposes and procedures of the evaluation should be monitored and described in enough detail, so that they can be identified and assessed.

Defensible Information Sources. The sources of information used in a program evaluation should be described in enough detail, so that the adequacy of the information can be assessed.

Valid Information. The information gathering procedures should be chosen or developed and then implemented, so that they will assure that the interpretation arrived at is valid for the intended use.

Reliable Information. The information gathering procedures should be chosen or developed and then implemented, so that they will assure that the information obtained is sufficiently reliable for the intended use.

Systematic Information. The information collected, processed, and reported in an evaluation should be systematically reviewed and any errors found should be corrected.

Analysis of Quantitative Information. Quantitative information in an evaluation should be appropriately and systematically analyzed, so that evaluation questions are effectively answered.

Analysis of Qualitative Information. Qualitative information in an evaluation should be appropriately and systematically analyzed, so that evaluation questions are effectively answered.

Justified Conclusions. The conclusions reached in an evaluation should be explicitly justified, so that stakeholders can assess them.

Impartial Reporting. Reporting procedures should guard against distortion caused by personal feelings and biases of any party to the evaluation, so that evaluation reports fairly reflect the evaluation findings.

Metaevaluation. The evaluation itself should be formatively and summatively evaluated against these and other pertinent standards, so that its conduct is appropriately guided and, on completion, stakeholders can closely examine its strengths and weaknesses.

Notes

Tools **2(eval).3.** Program Evaluation - Reporting Our Data (one page)

Program Evaluation - Reporting Our Data

School/District Name: _____Data Analyzed By: _____
Data Collection Period: _____ Date of Analysis: _____

Student Data
Record results or attach a report

___ ITBS/ITED

___ Diagnostic:

___ List all indicators for CSIP goals

___

Other Data

___ Other: _____

Implementation Data
Record results or attach a report

___ _____

___ _____

___ _____

___ _____

___ Other: _____

---

1. **What do you notice when you look at these data?**
   Do you have data for all students? …Do you have data for all teachers?
   What are you comfortable saying about student achievement based on these results?
   Did our students grow as anticipated during the period of implementation of our new content?
   Did all students grow equally, or did our professional development content work better for some groups of students?
   What are you comfortable saying about the implementation of professional development based on these results?
   Did all teachers implement equally, or did some teachers implement the new content more frequently or more accurately than others?
   Are these results consistent wit our formative evaluation?

2. **What additional questions do these data generate?**

3. **What do these data indicate students need to improve?**
   Do we need to set new goals and a new professional development target?
   Based on these data, what can we infer teachers/administrators need to improve?
   Do we need to plan additional supports to facilitate implementation?

4. **What do the results and their implications mean for your district's comprehensive school improvement plan/district career development plan?**
   Should we continue the professional development initiative as is?
   Should we continue the initiative with changes?
   Show we consider the initiative complete and begin the decision making process to select another professional development target?

Notes

2(eval).4. Operating Principles for Program Evaluation (one page)

Attention to Operating Principles for Program Evaluation

List actions taken to support program evaluation.

1. Identify technical assistance needed to ensure that this component of the Iowa Professional Development Model is fully supported.
2. Consider possible pitfalls and strategies to avoid them.

Focus on Curriculum, Instruction and Assessment
Technical Assistance Needed:

Focus on Participative Decision Making
Technical Assistance Needed:

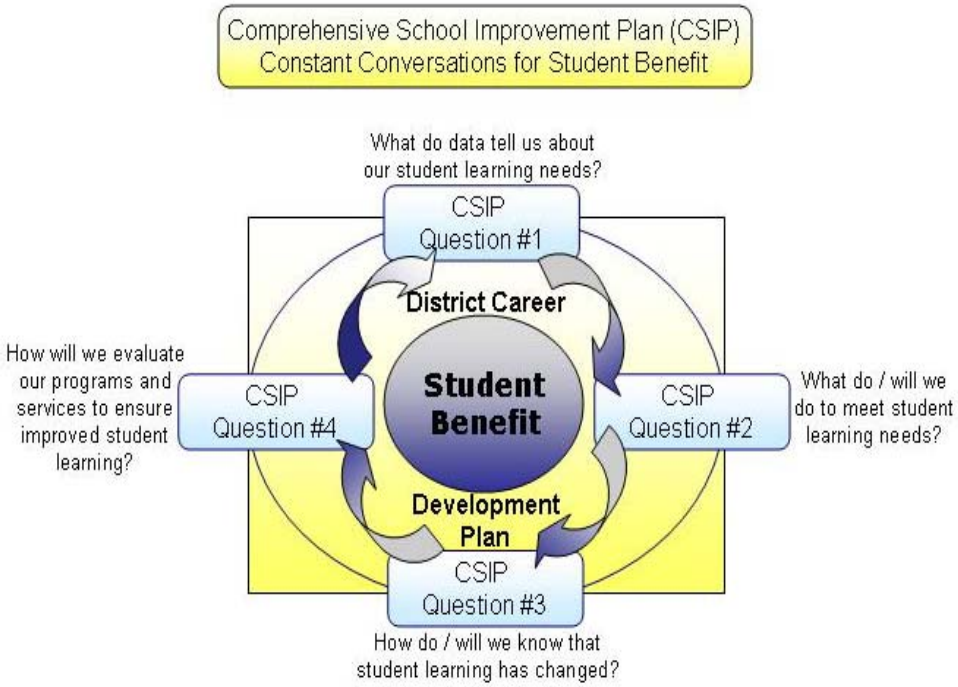
Focus on Simultaneity
Technical Assistance Needed:

Focus on Leadership
Technical Assistance Needed:

Comprehensive School Improvement Plan (C S I P)

Constant Conversation Questions for Student Benefit

Framework to Guide Thinking: Non-regulatory Guidance



Each public school district and accredited non public school will develop its new five-year CSIP framed around the following four questions that represent the common teaching and learning connections among all state and federal programs. The sub-questions represent only one way to think through the processes that will lead to a clear and usable plan focused on student benefit.

1. What do data tell us about our student learning needs?

A. What data do we collect?
B. How do we collect and analyze data to determine prioritized student learning needs?
C. What did we learn through this data analysis?
D. From the data analysis, what are our prioritized student needs?65%
E. How will we develop goals and actions based upon the prioritized needs?

2. What do/will we do to meet student learning needs?

A. What long-range goals have been established to support prioritized student needs?
B. What process will be used to determine what we will do to meet the long-range goals?
C. What is our current practice to support these long-range goals?
D. How is our current practice aligned with or supported by the research base?
E. What gaps exist between our current practice to support long-range goals and the research base (include curriculum and instruction)?
F. What actions/activities will we use to address prioritized needs, established goals, and any gaps between current and research-based practice?
G. How will we support implementation of the identified actions?

3. How do/will we know that student learning has changed (student data)?

A. How will we know student learning has changed over time in relation to our long-range goals?

4. How will we evaluate our programs and services to ensure improved student learning (implementation data)?

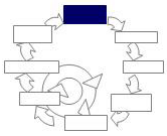
A. What strategies/process will we use to evaluate how well the activities included in section II(F) were implemented?
B. What implementation data will we collect, analyze, and use to determine how well each program/service selected in section II(G) has been implemented to support our CSIP goals?

Tools **3(stan).1.** Drafting the District Career Development Plan (p. 1 of 5)

Worksheet for Drafting the District Career Development Plan

Part 3 – C of the Manual lists rules and interpretations from Iowa Code subsection 284.6(3); regarding the requirements for a District Career Development Plan (DCDP). Each school district must include a DCDP within its submission of the Comprehensive School Improvement Plan (CSIP).

This worksheet assists a district in preparing the DCDP portion of the CSIP. As you work through the items in this Tool, refer to the statutory interpretations in Part 3 (II. District Career Development Plan) as well as the CSIP Constant Conversation questions and sub-questions on the facing page.

Model Component	IOWA Rule/Statute #1	CSIP Constant Conversation
 Collecting and Analyzing Student Data	From CSIP Rule/Statute Interpretation Matrix	? What do data tell us about our current student learning needs?

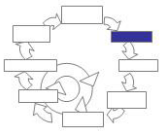
Rule/Statute #1
The long-range needs assessment process shall include provisions for analyzing information derived from local, state, and national sources. The process shall include provisions for reviewing information acquired over time on the following:

1) State indicators and other locally determined indicators,
2) Locally established student learning goals, and
3) Specific data collection required by federal and state programs

Worksheet Questions for Rule/Statute #1
The following worksheet items are the CSIP sub-questions for Constant Conversation Question 1.

- ❑ What data do we collect?
- ❑ How do we collect and analyze data to determine prioritized student learning needs?
- ❑ What did we learn through this data analysis?
- ❑ From the data analysis, what are our prioritized student needs?
- ❑ How will we develop goals and actions based upon the prioritized needs?

Tools **3(stan).1.** Drafting the District Career Development Plan (p. 2 of 5)

Model Component		Constant Conversation
 Goal Setting and Student Learning	**Rules/Statutes #16 & 17** From CSIP Rule/Statute Interpretation Matrix	? What do/will we do to meet student learning needs?

Rule/Statute #16 & 17:
#16 - The district career development plan shall align all career development with the school district's long range student learning goals which are based on student achievement data and analysis (public schools).
#17 - Provide documentation that professional development is focused on instruction, curriculum, and assessment.

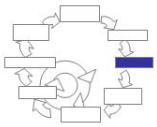
Worksheet Questions for Rule/Statute #16 & 17:

- ❑ What long-range goals have been established to support prioritized student needs? Record your goals or refer to the document where they are already recorded.

- ❑ List the Annual Measurable Objective (AMO). (Annual goals will not be required in the CSIP but including them in your planning process will be helpful.)

- ❑ Indicate your professional development target for each building. (Documenting the building level target is not required in the CSIP but including them in your planning process will be helpful.)

Tools **3(stan).1.** Drafting the District Career Development Plan (p. 3 of 5)

Model Component		Constant Conversation
 Selecting Content and Providers	**Rules/Statutes #18, 19, 20** From CSIP Rule/Statute Interpretation Matrix	? What do/will we do to meet student learning needs?

Rule/Statute #18, 19, & 20
#18 - Research-based instructional strategies aligned with the school district's student achievement needs and the long-range improvement goals established by the district.
#19 - The district career development plan shall contain documentation that professional development learning opportunities are aligned with Iowa Teaching Standards and Criteria.
#20 - The plan shall indicate the school district's approved professional development provider or providers.

Worksheet Questions

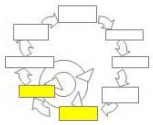
- ❑ For Rule #18: Explain the process for determining that the strategies/program that has been selected has a research base. How do you know that this practice has been applied in another setting and has evidence of results -- increased student achievement? List the criteria applied.
  Note: Please do not send in reference lists, literature reviews, research studies.

- ❑ For Rule #19: Identify the Iowa Teaching Standards and criteria that are supported by the professional development teaching and learning opportunities.

- ❑ For Rule #20: Indicate who will serve as your provider.

- ❑ Provider (check √ if applicable):
  ___Provider supporting the district is accredited by the DE.
  ___Provider supporting the district has completed the approval process.

Tools **3(stan).1.** Drafting the District Career Development Plan (p. 4 of 5)

Model Component		Constant Conversation
 Training/Learning Opportunities as well as Collaboration/Implementation	**Rules/Statutes #21** From CSIP Rule/Statute Interpretation Matrix	? What do/will we do to meet student learning needs?

Rule/Statute #21
The district career development plan shall contain description of instructional improvement components including student achievement data, analysis, theory, classroom demonstration and practice, technology integration, observation, reflection, and peer coaching (collaboration).

Worksheet Questions

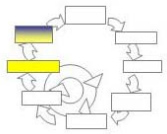
- ❑ What actions/activities will we use to address prioritized needs, established goals, and any gaps between current and research-based practice?

- ❑ Indicate how the plan provides for all K-12 teachers responsible for instruction.

- ❑ Describe how training and learning opportunities will make sure teachers learn theory, see demonstrations, and practice in a workshop setting (e.g. common training sessions, workshops between common sessions).

- ❑ Describe how you intend to build in opportunities for teachers to learn collaboratively (e.g. time built into work week for observations, practice, planning, working with data, coaching).

Tools **3(stan).1.** Drafting the District Career Development Plan (p. 5 of 5)

Model Component:	**Rules/Statutes #35**	Constant Conversation
 Ongoing Data Collection (Formative Evaluation) & Program Evaluation (Summative)	From CSIP Rule/Statute Interpretation Matrix	? How will we evaluate our programs and services to ensure improved student learning? (Implementation data)

Rule/Statute #35
The district career development plan shall contain a description of a program evaluation designed for formative and summative evaluation…

Worksheet Questions

- ❑ How will we evaluate our programs and services to ensure improved student learning? (Implementation data)

- ❑ Formative — List sources of data and write a brief statement describing the implementation data that will be collected to help you make decisions about needed implementation adjustments. Formative data includes what you collect to determine the frequency of how often teachers are implementing a strategy, how well the teachers are implementing and how students respond to instruction. (E.g. Collection of meeting minutes, lesson plans, teacher logs, observations, review of student data.)

- ❑ Summative — List sources of implementation and student achievement data you will use to decide whether you will continue the initiative as is, continue with changes, or consider the initiative complete and begin the decision-making process to select another professional development priority.

Notes

Tools 3(stan).2. Four Samples of Individual Career Development Planning Tools (p. 1 of 10)

Sample Individual Career Development Plans

Sample Individual Career Development Plans 1 through 4 follow on the last nine pages of this Part. The plans are color-coded for your convenience in moving from one to the other.

Note: This sample of an individual career development plan is offered as non-regulatory guidance only. Components of any Individual Teacher Career Development Plan are locally determined.

Sample I: Annual Individual Career Development Plan

Name of teacher: _____

Name of evaluator: _____

Date plan was developed: _____

Date of last performance review: _____

Teacher's Signature: _____ Date of Approval_____

Evaluator's Signature: _____ Date of Approval_____

Goal for Professional Growth: _____

_____

Describe how this goal helps the teacher to meet the goal(s) of the district career development plan and the actions the building has identified to improve student achievement:

Identify the data used to identify the need and resulting goal(s):

Describe the professional development training and learning opportunities included to support the teacher in accomplishing established goals:

How does this goal and the training and learning opportunities align with the Iowa Teaching Standards and criteria? Which of the teaching standards and criteria will be the focus of this plan?

List the indicators that will be used to document the accomplishment of this goal.

	Summary of Status on Goal #1	Additions	Date Reviewed; Teacher & Evaluator Initials
Year 1			
Year 2			
Year 3			

Tools 3(stan).2. Four Samples of Individual Career Development Planning Tools (p. 2 of 10)

Goal 2: Identify an additional individual professional development goal, if needed, as a result of performance review dialogue or to address an individual professional development need.

_____

_____

If the teacher identifies additional goals as the plan progresses, describe the data sources used to determine the need for additional goals.

Describe how this goal helps the teacher to meet the goal(s) of the district career development plan and the actions the building has identified to improve student achievement:

Identify the data used to identify the need and resulting goals:

Describe the professional development training and learning opportunities included to support the teacher in accomplishing established goals:

How does this goal and the training and learning opportunities align with the Iowa Teaching Standards and criteria? Which of the teaching standards and criteria will be the focus of this plan?

List the indicators that will be used to document the accomplishment of this goal.

	Summary of Status on Goal #1	Additions	Date Reviewed; Teacher & Evaluator Initials
Year 1			
Year 2			
Year 3			

Tools 3(stan).2. Four Samples of Individual Career Development Planning Tools (p. 3 of 10)

Note: This sample of an individual career development plan is offered as non-regulatory guidance only. Components of any Individual Teacher Career Development Plan are locally determined.

Sample 2: Annual Individual Career Development Plan

NAME OF TEACHER: _____

NAME OF EVALUATOR: _____

Date plan was developed: _____

Date of last performance review: _____

Teacher's Signature: _____ Date of Approval_____

Evaluator's Signature: _____ Date of Approval_____

Goal for Professional Growth:

_____

_____

Rationale: Why did you choose to enhance your growth in this area? (Include the data sources used to determine the need for this goal.)

State the building/district goal:

Describe the actions you plan to take to accomplish this professional growth goal:

Describe how these training and learning opportunities will contribute to the district career development plan and the district/building goal:

List supports and resources that will be needed (time, access to training, peer coaching opportunities, etc.):

Identify the criteria for determining that this goal has been met (use measurable and observable terms):

Describe the educational benefits you expect to acquire as a result of you implementation of this professional development plan:

Tools 3(stan).2. Four Samples of Individual Career Development Planning Tools (p. 4 of 10)

List the Iowa Teaching Standards and Criteria that will be addressed by these learning opportunities:

_____

_____

Status Report on Goal

School Year _____

Summary of results and effects on student outcomes:

Modifications/Adjustments to the Plan:

School Year _____

Summary of results and effects on student outcomes:

Modifications/Adjustments to the Plan:

School Year _____

Summary of results and effects on student outcomes:

Modifications/Adjustments to the Plan:

Tools 3(stan).2. Four Samples of Individual Career Development Planning Tools (p. 5 of 10)

Note: This sample of an individual career development plan is offered as non-regulatory guidance only. Components of any Individual Teacher Career Development Plan are locally determined.

Sample 3: Annual Individual Career Development Plan

NAME OF TEACHER: _____

NAME OF EVALUATOR: _____

Date plan was developed: _____

Date of last performance review: _____

Teacher's Signature: _____ Date of Approval_____

Evaluator's Signature: _____ Date of Approval_____

Goal Statement(s):

Data used to establish need for the goal(s):

Alignment of goal(s) with building/district student learning goals:

Professional development training and learning opportunities needed to accomplish established goals:

Other resources teacher may access to accomplish goal(s):

Alignment with Iowa Teaching Standards and criteria:

Documentation of progress (data sources and points):

Description of updates, major efforts, additional goals, modifications of current goals, etc.:

Year	**Describe Status of Goal**	**Signatures***
2005-2006 Review Date:_____		Teacher:_____ Evaluator:_____
2006-2007 Review Date:_____		Teacher:_____ Evaluator:_____
2008-2009 Review Date:_____		Teacher:_____ Evaluator:_____

*Signature indicates the evaluator and teacher have discussed the progress on the individual career development plan.

Tools 3(stan).2. Four Samples of Individual Career Development Planning Tools (p. 6 of 10)

This document is a portion of the Model Framework for Designing a Local Staff Evaluation System Based on the Iowa Teaching Standards and Criteria developed by Dr. Tom McGreal for the Iowa Department of Education. This is non-regulatory guidance only – the components of any Individual Teacher Career Development Plan are locally determined.

Sample 4 – Part 1
TIER II – Individual Teacher Career Development Plan

Teacher/Team	School

Date: _____ Target Completion Date: _____

General Focus of Plan _____

_____

Specific Goal(s) _____

_____

_____

_____

_____

_____

Connection to the needs of the teacher, the Iowa teaching standards, and the student achievement goals of the attendance center and the school district (CSIP)._____

_____

_____

_____

_____

_____

Tools 3(stan).2. Four Samples of Individual Career Development Planning Tools (p. 7 of 10)

Proposed Strategies/Activities: _____

Projected Products: _____

Resources Required: _____

Iowa Teaching Standards/Criteria_____

_____ _____

Teacher Date Administrator Date

Tools 3(stan).2. Four Samples of Individual Career Development Planning Tools (p. 8 of 10)

Note: This sample of an individual career development plan is offered as non-regulatory guidance only. Components of any Individual Teacher Career Development Plan are locally determined.

Sample 3: Annual Individual Career Development Plan

NAME OF TEACHER: _____

NAME OF EVALUATOR: _____

Date plan was developed: _____

Date of last performance review: _____

Teacher's Signature: _____ Date of Approval_____

Evaluator's Signature: _____ Date of Approval_____

Goal Statement(s):

Data used to establish need for the goal(s):

Alignment of goal(s) with building/district student learning goals:

Professional development training and learning opportunities needed to accomplish established goals:

Other resources teacher may access to accomplish goal(s):

Alignment with Iowa Teaching Standards and criteria:

Documentation of progress (data sources and points):

Description of updates, major efforts, additional goals, modifications of current goals, etc.:

Year	**Describe Status of Goal**	**Signatures***
2005-2006 Review Date:_____		Teacher:_____ Evaluator:_____
2006-2007 Review Date:_____		Teacher:_____ Evaluator:_____
2008-2009 Review Date:_____		Teacher:_____ Evaluator:_____

*Signature indicates the evaluator and teacher have discussed the progress on the individual career development plan.

Tools 3(stan).2. Four Samples of Individual Career Development Planning Tools (p. 9 of 10)

This document is a portion of the Model Framework for Designing a Local Staff Evaluation System Based on the Iowa Teaching Standards and Criteria developed by Dr. Tom McGreal for the Iowa Department of Education. This is non-regulatory guidance only – the components of any Individual Teacher Career Development Plan are locally determined.

Sample 4 – Part 2
TIER II – Form to Document Annual Conversation Regarding Implementation of the Individual Teacher Career Development Plan

END OF YEAR ONE ☐ END OF YEAR TWO ☐

Teacher/Team	**School**

1. At this point in the plan, re-articulate your professional growth plan. (Does it now differ in any way from your original plan?)

2. What progress have you made towards the plan's completion?

3. What specific steps are necessary to continue with this plan?

Tools 3(stan).2. Four Samples of Individual Career Development Planning Tools (p. 10 of 10)

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Sample 4 – Part 3
TIER II – End of Plan Summary
(To be included in the Career Teacher's Performance Review)

One Year Plan ____ Two Year Plan ____ Three Year Plan ____

Teacher(s)	School	Grade/Dept/Team

Plan State Date _____ Completion Date _____

Plan outcomes:

Indicators of progress:

Future considerations:

Iowa Teaching Standards/Criteria:

Teacher's comments and reflections:

Administrator's comments and reflections:

Teacher(s) Signature and Date: _____ _____

Administrator Signature and Date: _____ _____

Tools gen-1. Common Assessment Terminology (p. 1 of 2)

Common Assessment Terminology

Alignment — The process of linking content and performance standards to assessment, instruction, and learning in classrooms.

Confidence interval — A range of values constructed from sample data so that a population parameter occurs within that range at a pre-selected probability. A confidence interval (or confidence band) is an area of statistical similarity. Sometimes considered as a "buffer", the confidence interval reflects an area (or range) within which one group (e.g., the students in a school) is considered NOT to be statistically significantly different from another group (e.g., the students in the state).

Construct validity — A test has construct validity when it actually measures the knowledge domain or behavior it claims to measure. For instance, if you give a social studies test and a student does poorly because the reading level was too difficult. That test does not have construct validity, because it was really measuring reading ability.

Content validity — A test has content validity if it adequately samples the knowledge or behavior that has been the goal of instruction.

Criterion-referenced Testing — Taking student scores on an instrument and comparing them to a standard. Criterion-referenced assessment tells us how well students are performing on specific goals or standards rather than how their performance compares to a norm group of students nationally or locally.

Cross-tabulate — Compare subgroups of students on two or more variables. Use multiple sources of data about a group of individuals to search for patterns or variations.

Cross-sectional — Studying different groups of students at a particular age or stage of development. Example: Measuring fourth grade students each year on ITBS and comparing the results.

Disaggregate — Partition the data by relevant subgroups (e.g., race, ethnicity, or gender).

Effect Size — A way of quantifying a difference between repeated measures. From a research perspective, there are difficulties associated with pretest to posttest contrasts. However, from an "in the busy classroom" perspective, such contrasts usually help teachers arrive at sensible conclusions about the effectiveness of their instruction (Popham, 1999). One method for calculating effect size is shown as:

$$\text{Effect Size} = \frac{\text{Mean of Posttest} - \text{Mean of Pretest}}{\text{Standard Deviation of Pretest}}$$

Longitudinal — Studying the same group of students over a period of time.

Mean — The average of the scores. Example: Thirty students in a class take a test. To get the mean score, add up the raw scores of all 30 students and divide by 30.

Median — The point in a distribution above which and below which 50% of the scores lie. Example: 11 students take a test. Their scores are 100, 98, 95, 94, 92, 88, 86, 86, 85, 83, 77. The median is 88 because it is the middle score.

Tools gen-1. Common Assessment Terminology (p. 2 of 2)

Mode — The score obtained by the largest number of individuals taking a test. Example: 11 students take a test. Their scores are 100, 98, 95, 94, 92, 88, 86, 86, 85, 83, 77. The most frequent score is 86. The mode is 86. In the case of two most frequently occurring scores, such as 100, 98, 95, 94, 92, 92, 88, 86, 86, 83, 77, there are two modes (bimodal): 92 and 86. A multimodal test has a distribution with more than 2 modes.

Normal distribution curve — A theoretical curve noted for its bell-shaped form. In a normal distribution about 68% of the values are within one standard deviation of the mean and about 95% of the values are within 2 standard deviations of the mean.

Norm-referenced testing — Taking student scores on an instrument and comparing those scores to other students or a normed group of peers. ACT, SAT, and GRE are examples of norm-referenced tests.

Percentile score — A score that tells the percentage of individuals taking a test who are at or below a particular score; a percentile rank of 85, for example, means that the student did as well or better than 85% of those taking the test.

Qualitative data — Observations that consist of words, labels, or numerical codes.

Quantitative data — Observations consisting of numbers that indicate differences in amounts.

Range — Indicates the measure of variability from the highest score to the lowest score.

Reliability — A test is said to be reliable if a student's scores would be the same in repeated testing.

SES — Socioeconomic status characteristic(s). Whether or not a student receives free or reduced priced lunches is often used as a measure of SES.

Standard deviation — A measure of variability that indicates the how scores differ from the mean or average score.

Validity — A test is said to have validity if it measures what it is supposed to measure and inferences and actions made on the basis of test scores are appropriate and accurate. For example, if a student performs well on a reading test, how confident are we that that student is a good reader? A valid standards-based assessment is aligned with the standards intended to be measured, provides an accurate and reliable estimate of students' performance relative to the standard, and is fair. Further, an assessment cannot be valid if it is not reliable.

Tools gen-2. Acronyms and Abbreviations (one page)

Acronyms and Abbreviations

For convenience, this list is included at the beginning of Part 1.

AEA	Area Education Agency
AIG	Annual Improvement Goals
AMO	Annual Measurable Objective
AYP	Adequate Yearly Progress
CSIP	Comprehensive School Improvement Plan
DCDP	District Career Development Plans
DDL	Data Driven Leadership
DE	Department of Education
ELL	English Language Learner
FR	Free/Reduced Lunch
IASB	Iowa Association of School Boards
ITBS	Iowa Test of Basic Skills
ITCDP	Individual Teacher Career Development Plan
ITED	Iowa Test of Educational Development
LEA	Local Education Agency
LEP	Limited English Proficient
NAEP	National Assessment of Educational Progress
NSCD	National Staff Development Council
NCLB	No Child Left Behind
NPR	National Percentile Rank
PD	Professional Development
SE	Special Education
SES	Socio-Economic Status
SINA	School in Need of Assistance

Tools gen-3. Four Operating Principles (one page)

Four "Operating Principles"

Focus on Curriculum, Instruction, and Assessment
A clear focus on instruction is essential. Deliberate alignment of instruction, curriculum, and assessment increases the likelihood that professional development efforts will be effective. If the goal is increased student achievement, use the most powerful tools over which the school has control.

Participative Decision Making
Collective action requires a democratic process. Teachers are engaged in decision making and planning for professional development that is aligned with identified student needs. Communication and governance processes are in place to increase the likelihood that decisions made about staff development are binding. When professional development decisions affect a group (rather than an individual), group members must participate in those decisions.

Leadership
Strong leaders are essential for successful professional development efforts. Leaders facilitate the engagement of all faculty members responsible for instruction, address time and resource issues and balance both the pressure and support required to sustain professional development efforts as a priority. For leadership to be pervasive and intense enough to make things happen at the district, building, and classroom levels, it must be distributed through the organization – involving the school board, central office administration, building-level administration, and teachers. Collective professional development aimed at student learning goals requires focused leadership.

Simultaneity
Schools and districts often have to attend to multiple concerns simultaneously. Professional development efforts balance the resources directed toward and the efforts invested in content, context and processes. To accomplish student achievement gains, focusing on new content is the priority but simultaneously issues of context and process may also need to be addressed. Select a priority in which to invest professional development time and resources and then seek ways to integrate other concerns without losing focus on the major initiative. If multiple initiatives receive equal effort, the probability of succeeding with any of them is reduced.